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# preface

Anyone who likes drawing wants their characters to be pleasing to them.

Even if I erase it several times, I see it even if I fix it, and I repeat it by raising and lowering the corners of my eyes. If other people like the finished character like that, there's no reason to feel so good. I did.

However, there are many hurdles to overcome in order to draw such a character. It goes without saying that the process is both difficult and difficult, requiring time and effort. This book is a character. Among them, it was completed after much consideration so that the knowledge required to draw a female character can be grasped more easily and objectively.

I'm very careful about depicting certain characters.

Whether the means of expression are words or paintings, someone who has the opposite opinion may feel

uncomfortable. When I tried to focus on how to draw a female character, there was a part that I was

worried about. How can I objectively contain the necessary knowledge without distortion? I was worried.

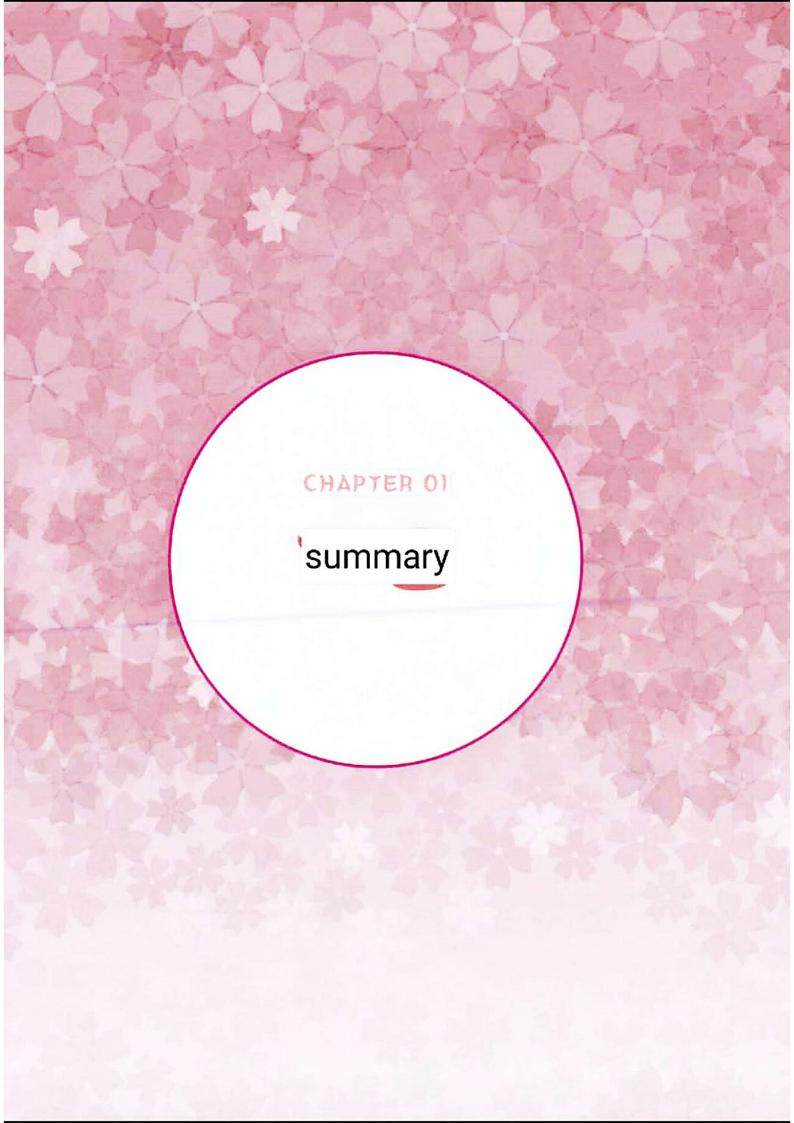
Therefore, in my book, subjective elements such as 'cool' and 'beautiful' are not absolute answers, but subjective factors, I tried to help readers to think and express freely.

The elements needed to draw a character are no different for any character. I am thinking about how to express a character based on objective information, and I hope that my book will be of some help to the noble work of creating a character.

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# What is beauty?

According to the times, the standards of women's beauty have changed in various ways according to cultural and ethnic differences. Big eyes, a pointed nose, cherry-like lips, etc. Today's standards of beauty are shown in so many different ways that it is difficult to define them.



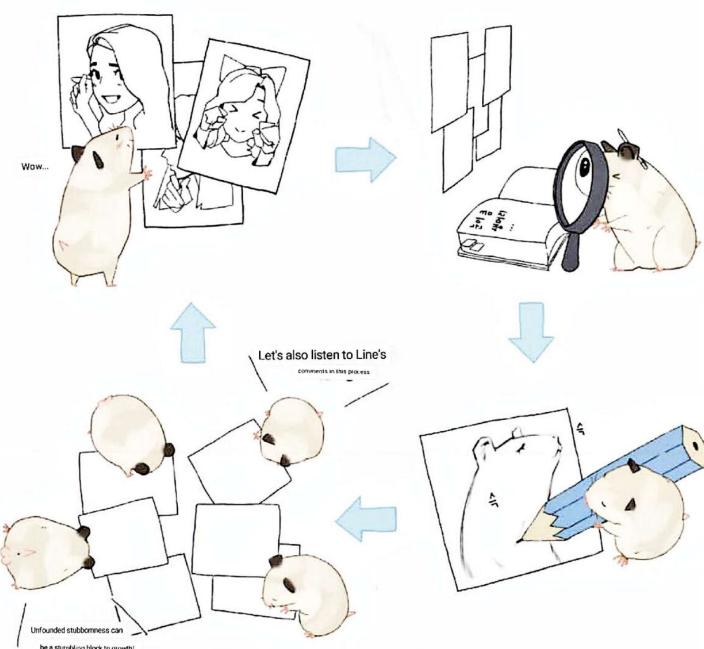
As the standards of beauty change so diversely and subjectively, the standards for the characters in the paintings also become very vague. However, popularly loved characters have two things in common. They are 'attractive' and 'persuasive'.



No matter how pretty you draw a character's face, if you don't have more than a certain level of persuasion, you often become a gag character. Therefore, it is essential to understand the basic human body.

If you have persuasive power, what should you do to add charm to the character? I recommend 'find your own standards first'. Perhaps you have experienced the feeling that the character in the picture resembles you while drawing. These are the things you see or feel the most. Or it is because you unconsciously pursue your utopia, and you can find your own standards in this. The method below is how I find the criteria.

Scrap a picture of your favorite person or author. Look at the scrapped images frequently and analyze commonalities.

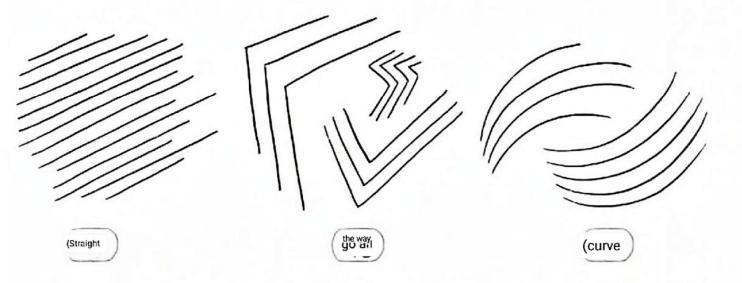


Collect pictures one by one and take them out frequently, looking for repeated bad habits and characteristics.

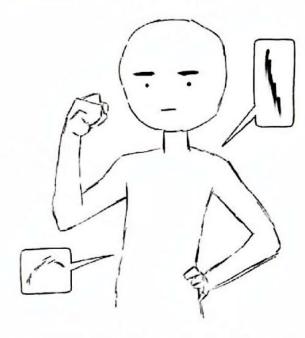
Draw a picture based on the analyzed information.

### 23 Drawing basics, drawing a line

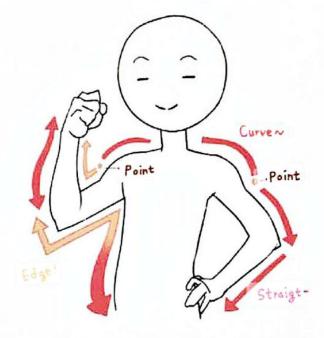
Of course, lines are the basis of shapes in drawings. It is an important element that can convey various feelings such as character's personality, strength, and movement. So, before you start drawing, you need to know the type and feel of the line. And let's see how to use it.



Lines can be broadly divided into straight lines, angled lines, and curves. Depending on the pose and body type of the character, a combination of these three lines can have a sufficient effect.

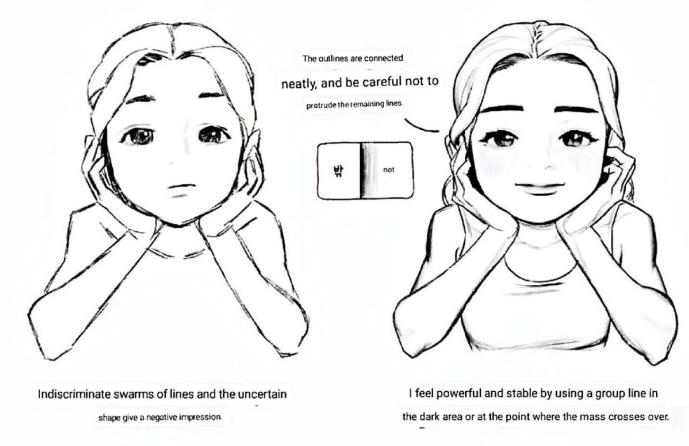


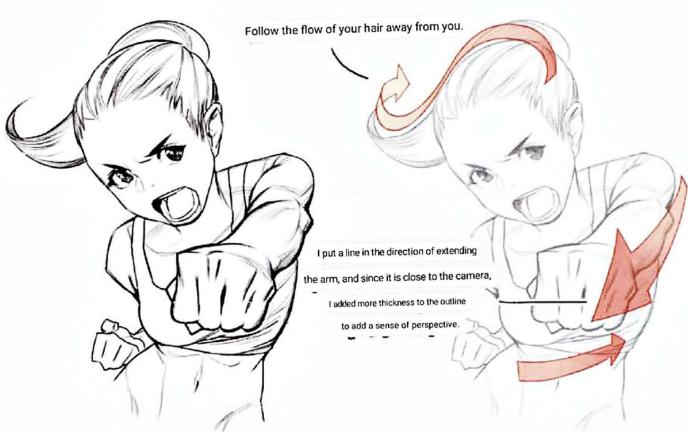
If you draw a picture using a line that breaks with a single line, the shape is unclear and gives a rough (negative) feeling.



Therefore, after grasping the 'start' and 'process' of the lines connecting each part, let's practice holding the shape concisely using the above three lines.

A 'swarm' of overlapping lines can also have a great effect, making the character feel active and stable. However, be careful as the feeling of being conveyed can be completely different depending on how you use this group line.





Also, in the preliminary round, a character taking a dynamic pose can have the effect of making it more vital by adding a line with the same direction as the movement direction.

🗸 positive direction of the line

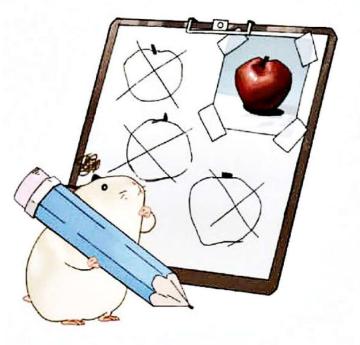
The shape of the character is clear and the power is distributed according to the movement, so you feel a sense of stability.



The shape is unclear and the irregular flow disturbs the focus on the character.

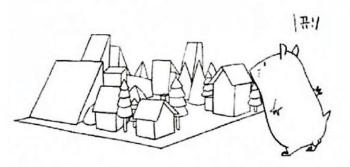




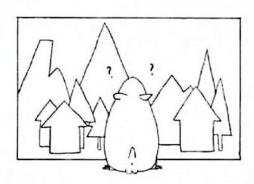


# 83 Three-dimensional interpretation

A common difficulty when drawing a picture is when the picture looks light or awkward by drawing an object flat. Therefore, in order to express a painting more objectively and persuasively, it is necessary to understand and interpret it as a three-dimensional rather than a flat surface.



The standard of 'objectivity' and 'persuasiveness' in the picture is the world we see through our eyes. Simply put, what looks plausible is an objective and persuasive picture.



However, when drawing, it is easy to think of only scenes that are directly visible, so specific training is required for this.

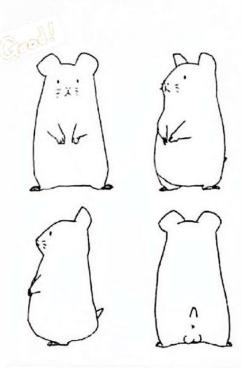
#### #training with the eyes



It's hard to figure out what an object is just by looking at the silhouette!



You can tell the shape by putting in the internal structure, but it lacks a clue to feel the volume.

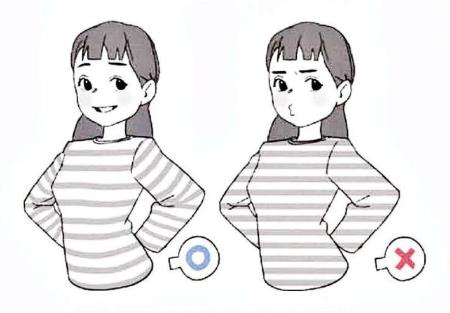


So, let's try to think of an image viewed from various angles and practice understanding the volume of an object.

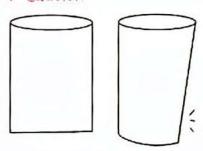
When observing things like this, let's develop the senses by imagining the shape and volume seen from various angles with our eyes. Also, continuous inspection is required to reveal this part even when drawing.



When you look at an object, you can feel the three-dimensional effect of the shape with the bright side, the dark side (contrast) and the shadow. there is.



& Caution



Let's check continuously whether the shape in the picture is cut off or not flat.

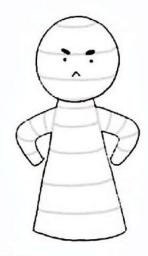
If you look at a striped t-shirt, imagine that the pattern

rotates to match the volume the t-shirt creates.



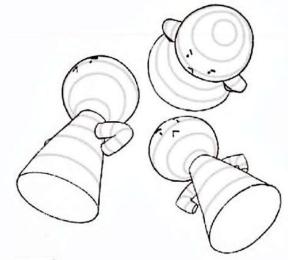
Step.1

Draw the visible form of an object.



Step. 2

Check the volume by adding a perspective line.

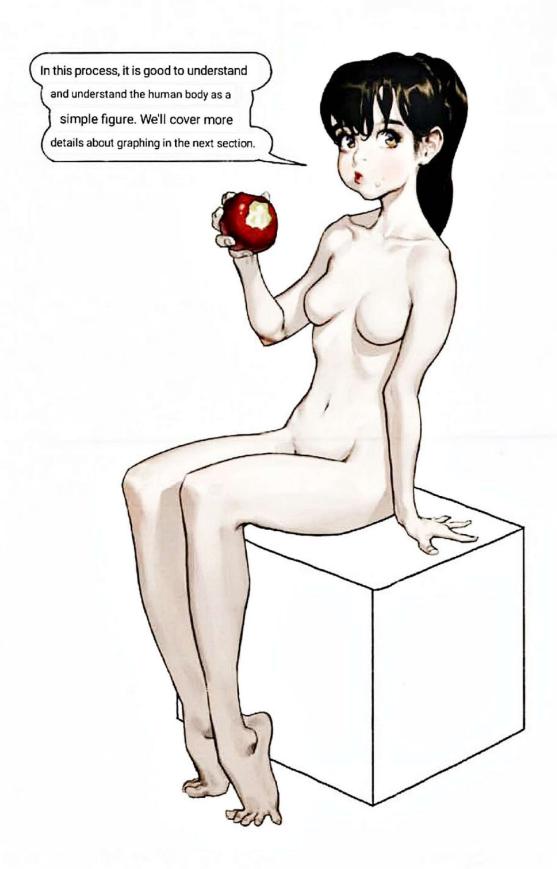


Step. 3

Imagine and draw an image when viewed from various positions and angles.

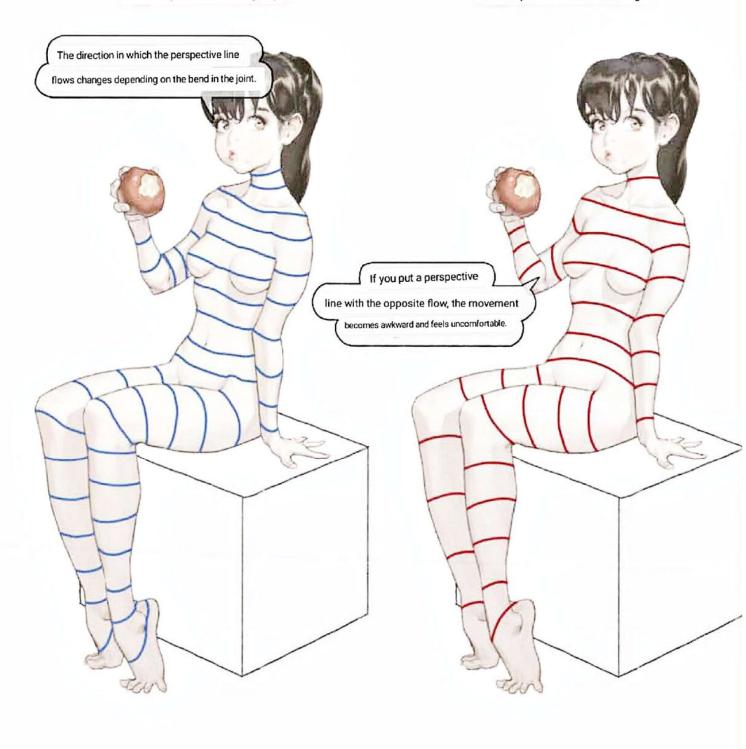
3 Let's practice while looking at the figures

The human body is more difficult to grasp the sense of volume according to various poses and angles. Therefore, let's divide the body into parts based on the joint, draw a perspective line, check the volume, and practice while imagining images viewed from different angles.

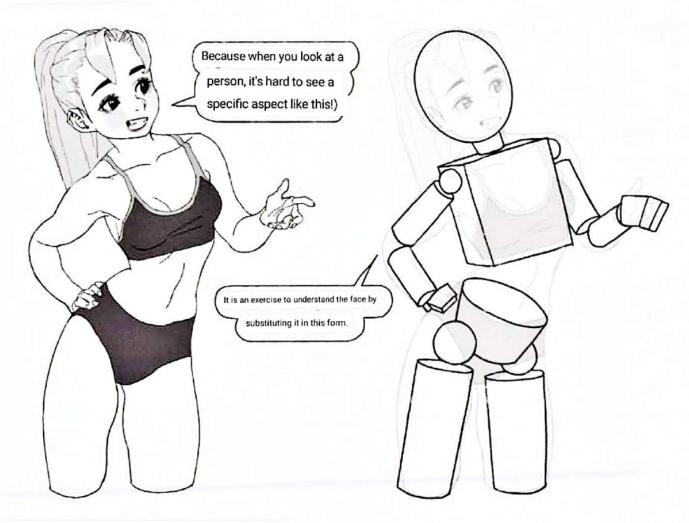


# 23 Examples of correct grasp

### 23 Examples of Misunderstandings

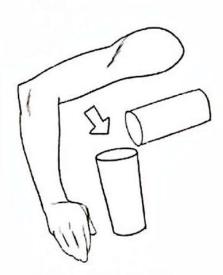


In order to express the character three-dimensionally, it is better to understand it in a more simplified form. The concept that appears at this time is 'figuration'. Graphicalization literally means 'a method to help grasp the sense of volume by simplifying the surface of the object and replacing it with a figure'.

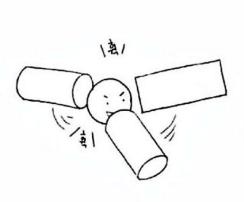


If so, what shape would it be easier to replace? There are

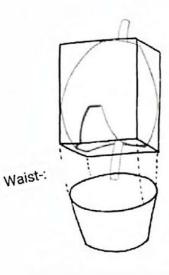
various types of figure drawing, but in my case, based on the joint, I replace it according to the shape of each part, such as a sphere, cylinder, or box.



Arms and legs use a 'cylinder' for joints.



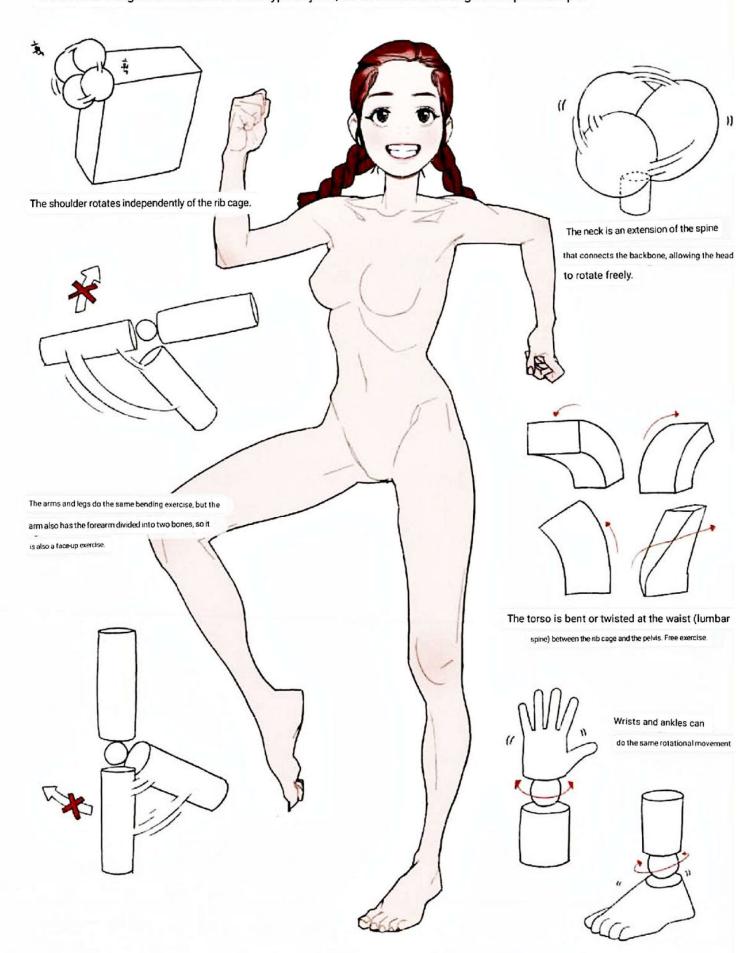
The joint part, which is the standard for movement - - - in the middle, uses a 'sphere' for flexible movement.



The body, which becomes the central axis, divides the rib cage and pelvis, and connects the box and basin shapes, respectively.

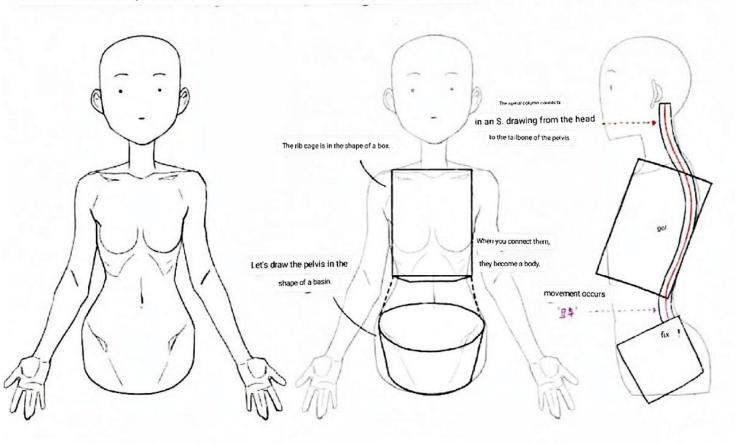
# 23 Types of Joints

There are several types of joints that allow our body to move smoothly. Just as an arm or leg cannot be bent backwards, there are different angles of motion for each type of joint, so let's find out through a simple example.

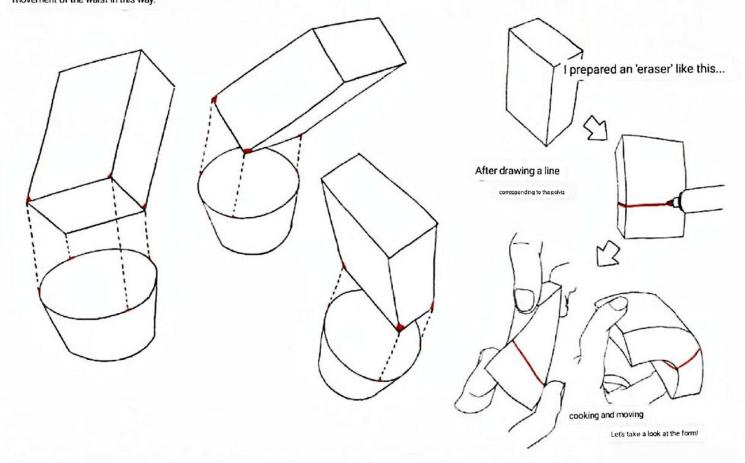


83 Let's figure out an example of figure drawing for each part.

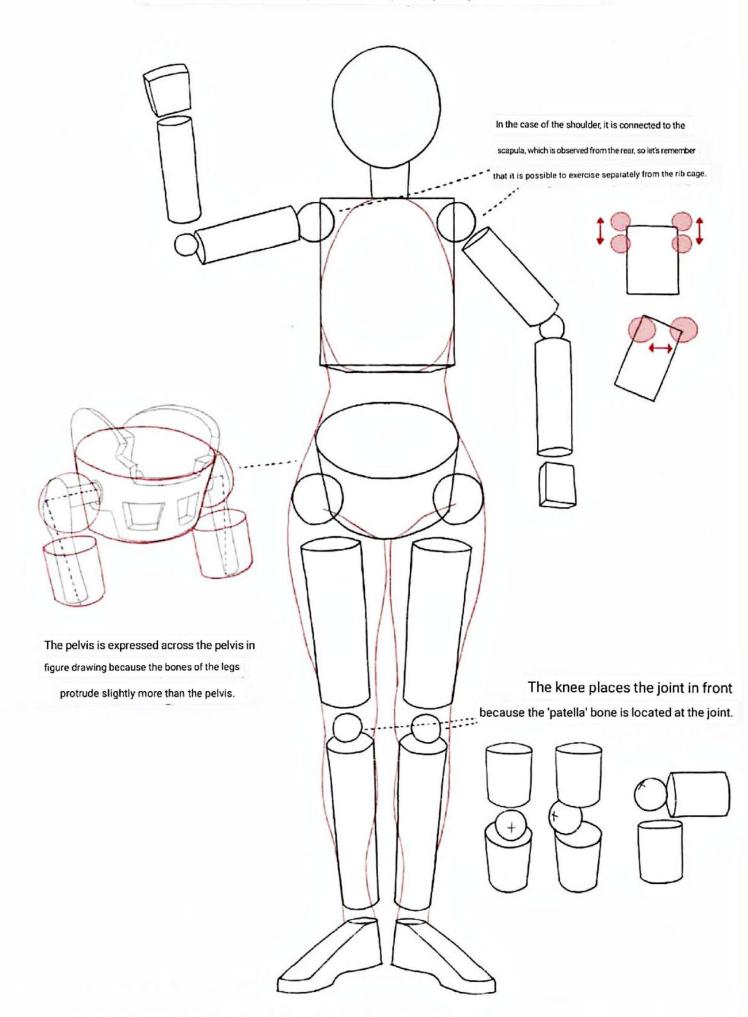
The torso from which the arms and legs come out is connected in a figure centered on the rib cage and pelvis. The reason is that it is a large bag that extends from the central spinal column, and the movement takes place at the 'yaw' located in between.



Let's practice drawing the shape of a 'torso' by connecting the vertices after dividing the rib cage and the pelvis in consideration of the movement of the waist in this way.



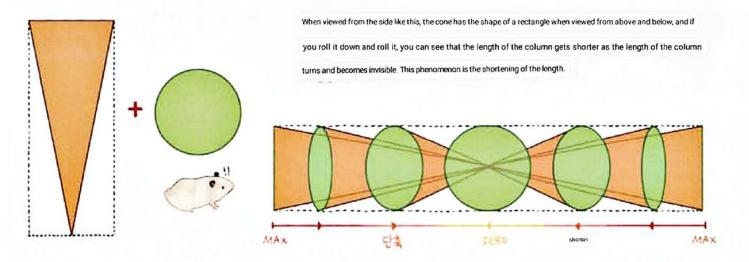
Let's start attaching the arms and legs. The overall shape is easy when you think of a 'wooden doll'.



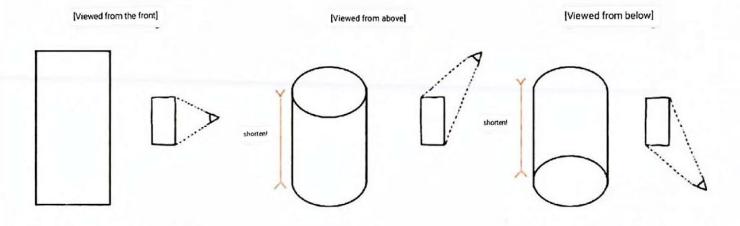


The foreshortening method is a technique that moves the phenomenon that an object appears shorter than its actual length when placed at an angle to a flat surface.

It is one of the biggest reasons why the proportions of the figures are broken or the movement becomes awkward during the process of drawing.

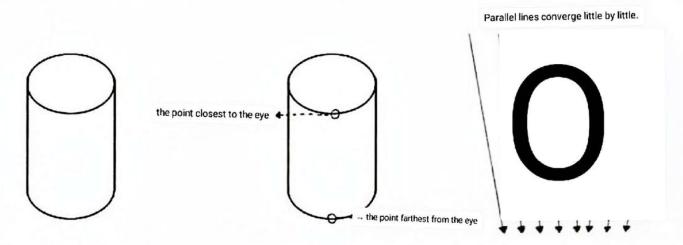


This shortening occurs not only when the object is moved, but also when the eye level changes. You can check the short axis by looking at the same object from the front, top, and bottom.

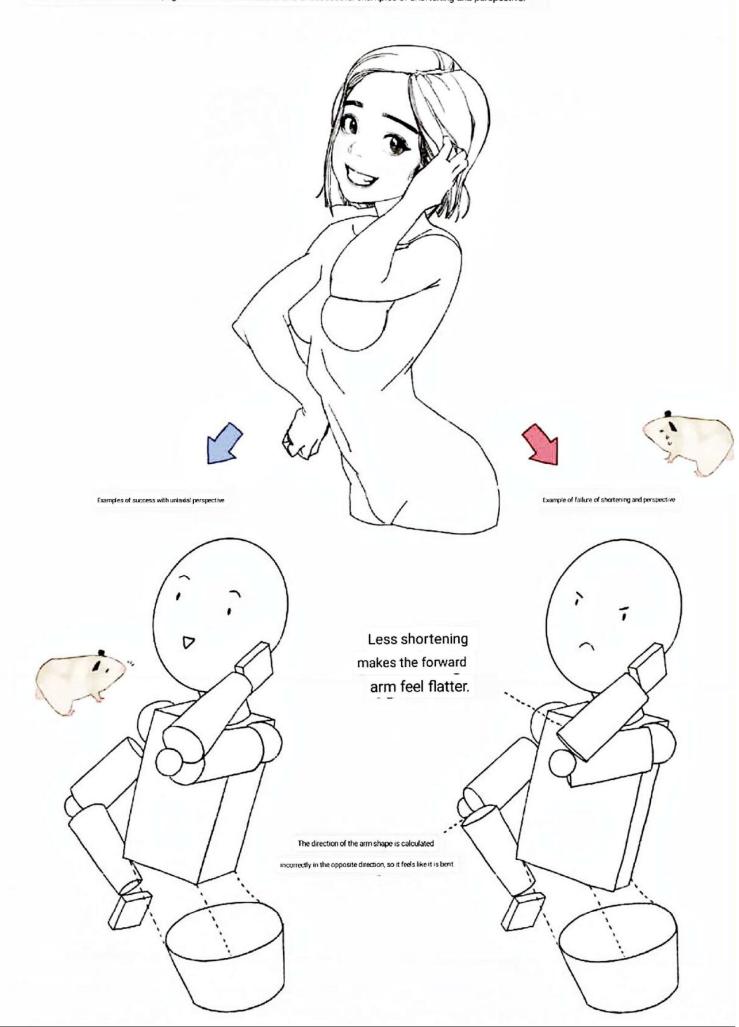


However, it is difficult to express the perspective of an object only by shortening the length. Therefore, it is much more natural to add the concept of 'Lucy'.

Briefly, the principle of clairvoyance is that things close to our eyes get bigger and things farther away get smaller.

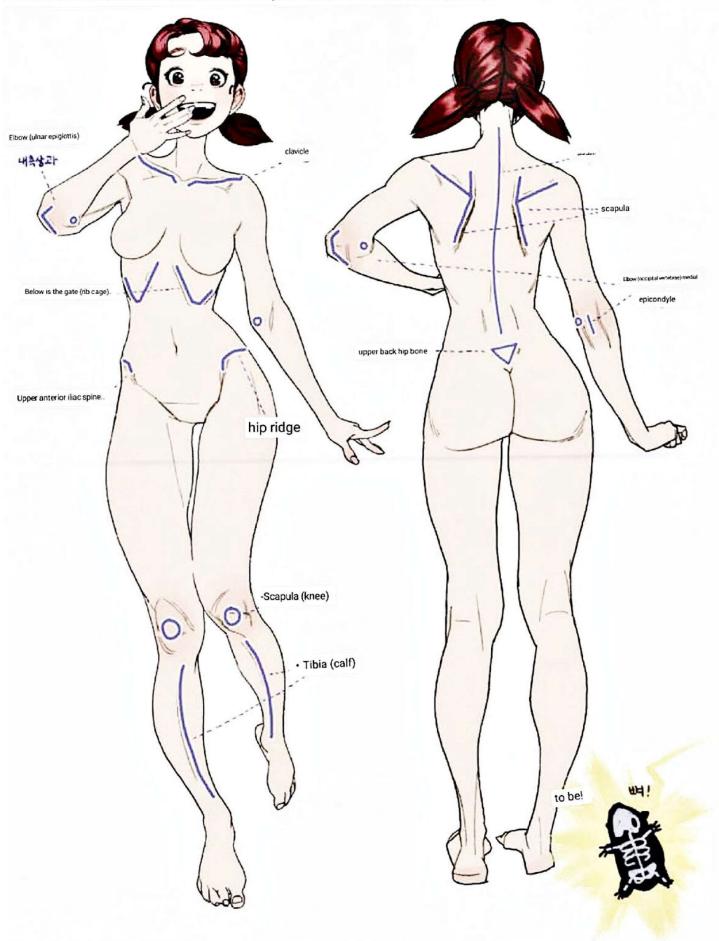


Therefore, when drawing a character, sensing such short-axis and perspective in the figure-making stage and putting it on flat washi paper can be seen as a natural and three-dimensional character, right? Below are successful and unsuccessful examples of shortening and perspective.

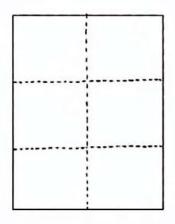


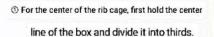
# 83 Bone Landmark

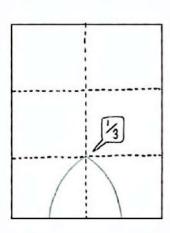
Each part of the human body has 'bones' that are visible on the surface. Let's call the bones that are the main indicators of these characters the Bone Landmark. Let's keep these landmarks in mind when painting.



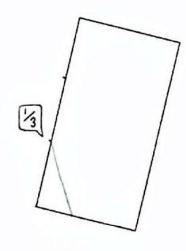
#### 83 Let's study by drawing this landmark that can be recognized in the drawing process.



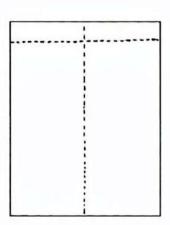


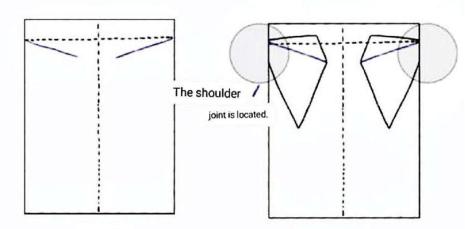


② Next, draw the lower chest door of the person who splits from the 1/3 point from the bottom.



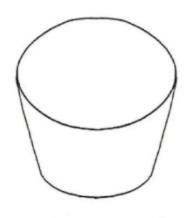
\* Similarly, cracks can be seen from the side as well.

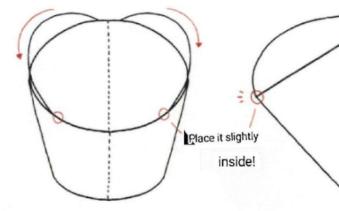




① Since the scapula is far from the rib cage, hold the slightly inclined 'acromion' at a position slightly down from the top of the box.

② Then a large triangle that descends with a slope close to 90' down. Connect the small triangles at the top.

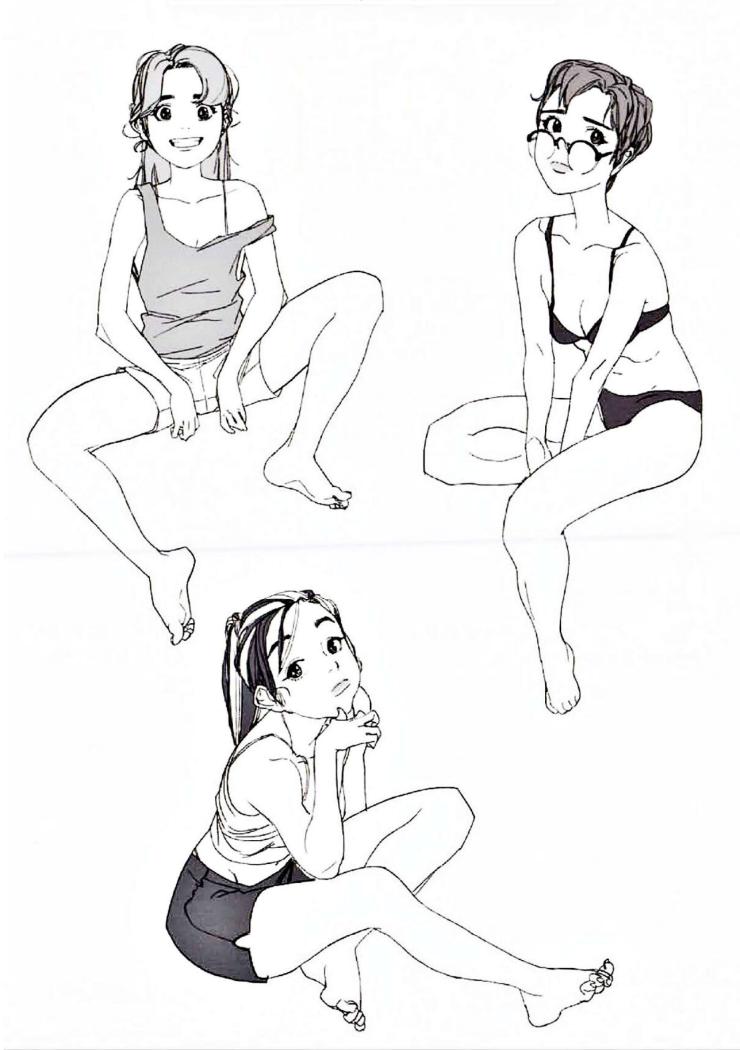


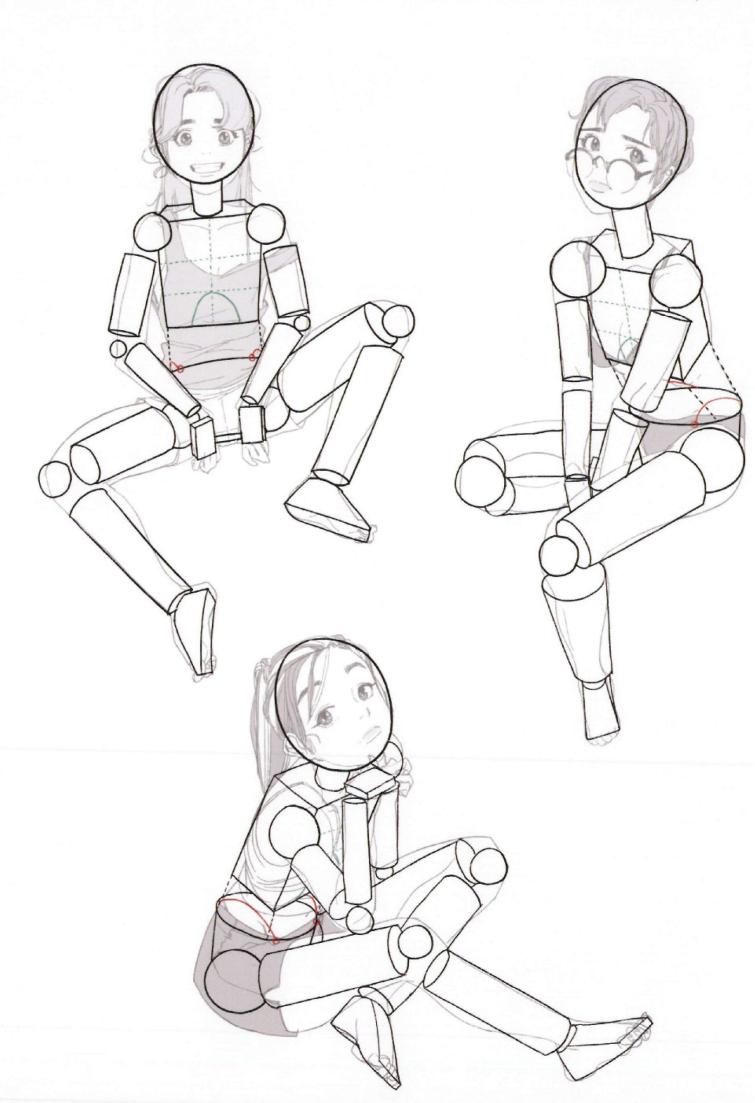


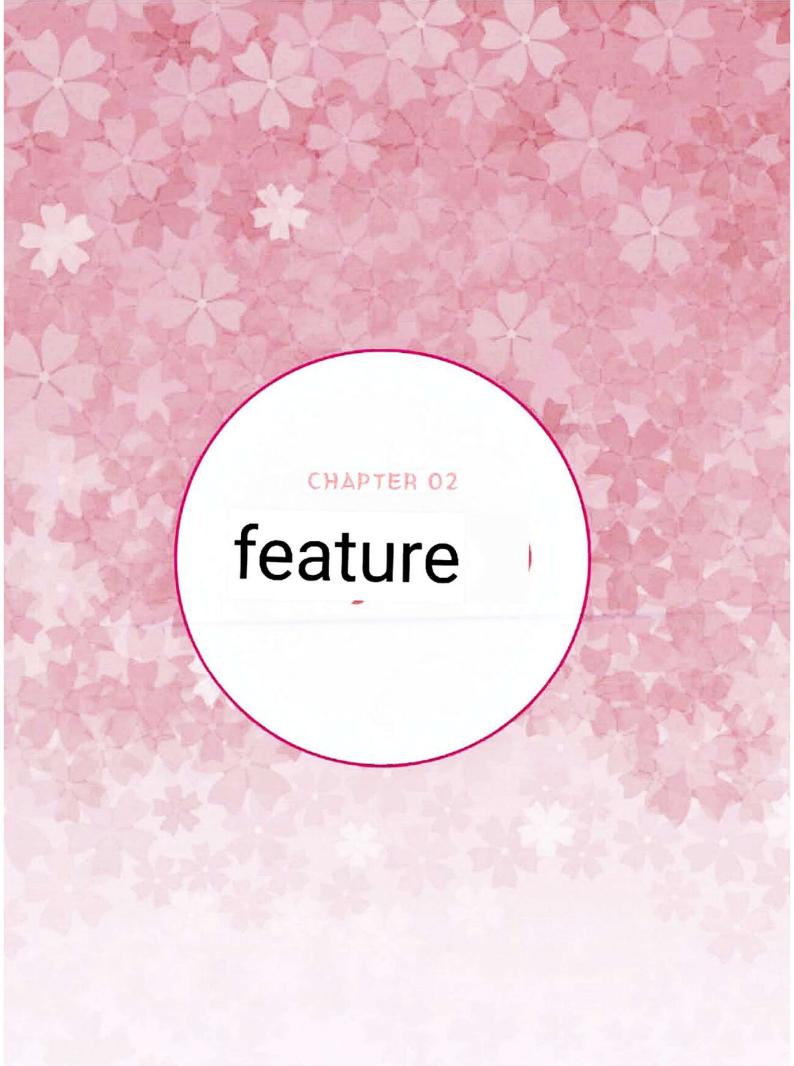
 For the pelvis, first hold the hip bone ridge that draws an arc from the back based on the center of the Daeya figure.

② After that, let's check the upper anterior iliac spine.

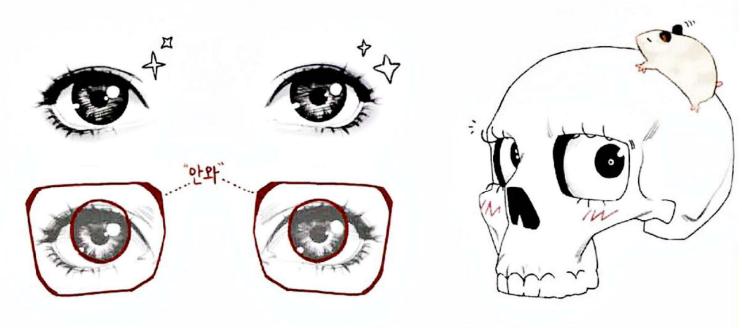
83 Let's look at the characters in various poses and make them three-dimensional.



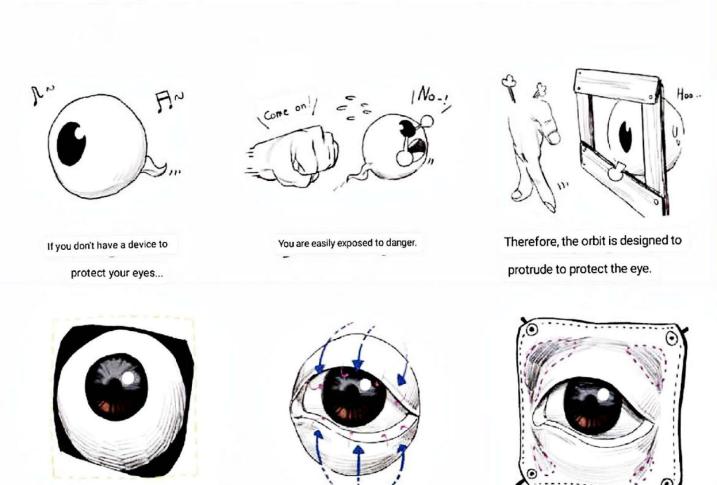




The eyes are one of the most important organs that influence the impression of a character. As such, the structure to examine is complex and the range of expression is wide.



The ball-shaped eyeball is protected inside a crooked square hole. This hole is called the 'orbit'.

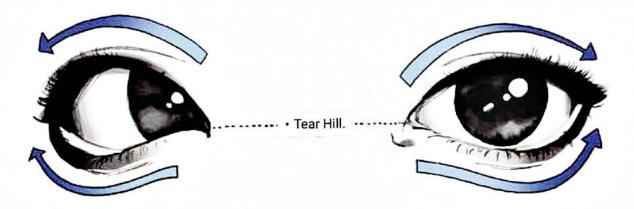


The orbit is reminiscent of a slightly skewed rectangle laterally.

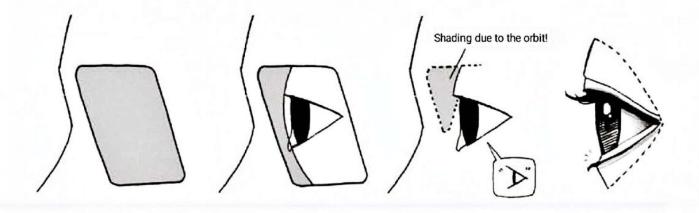
Eyelids don't come, in the shape of the eyeball Covered accordingly.

At this time, keep in mind the space between the eyeball and the orbit.

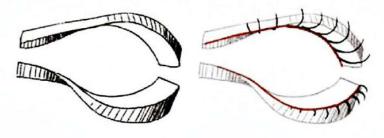
The upper eyelid of the eye covers the eyeball in a long curve from the lacrimal hill, and the lower eyelid turns rapidly toward the side.



Eyes from the side do not come. The eyelids that cover the eyes look like the letter 'A' lying on their side, and the upper eyelids are sharp. The lower eyelid gently retracts, exposing the thickness of the lower eyelid.

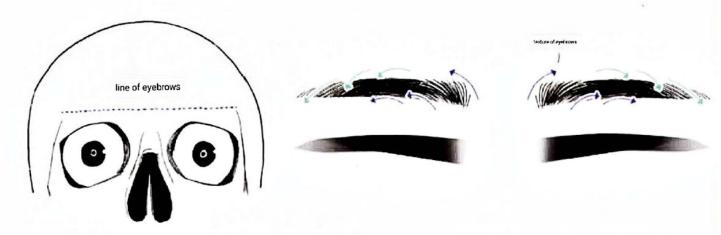


Even on the half side, the lower eyelid curves and rotates, so a certain amount of thickness is exposed. In addition, eyelashes come out from the inside of the eyelids and add a three-dimensional effect to the eyelids.

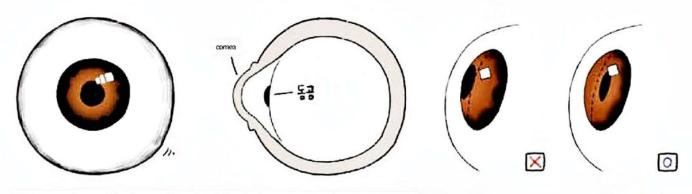




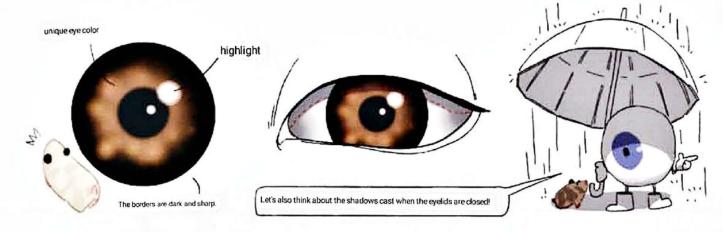
Eyelashes curve from the inside out, because they grow according to the shape of the eye.



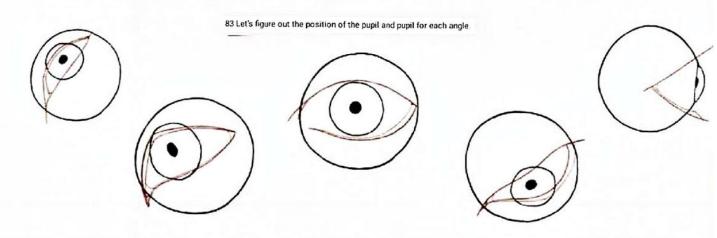
The eyebrows grow in the upper part of the orbit, and the bone in this area protrudes slightly, creating a sense of volume in the eyebrows. Also, the density is highest at the center of the eyebrows, and relatively low density at the start and end points.

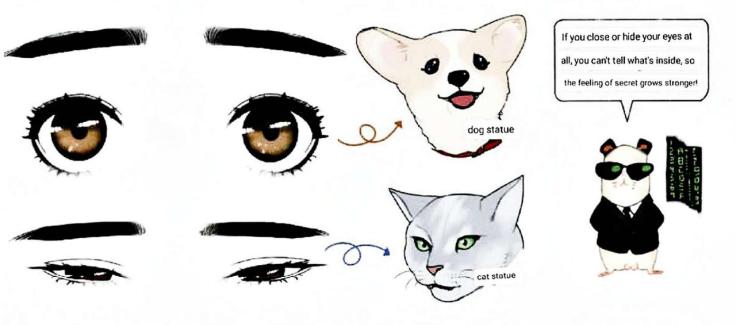


Note that the pupil in the pupil is slightly locked, not attached to the surface.



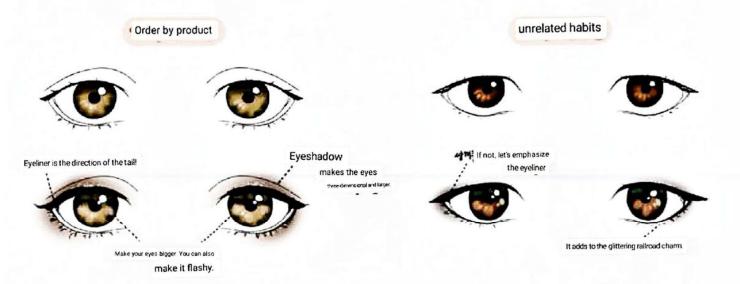
The highlights on the pupils are reflected from the light in front of them, so there may be several more depending on the situation. This highlight has the effect of making the eyes even more dazzling and radiant.



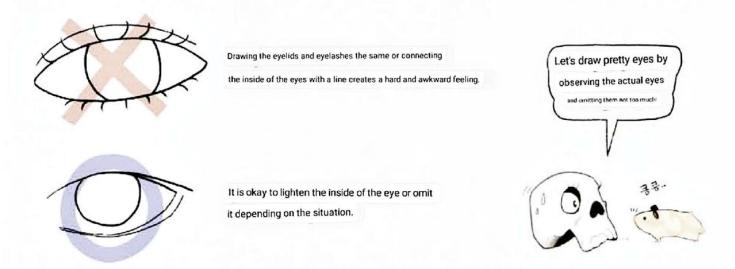


The round, big eyes stimulate the protective instinct. Also, because the eyes are the windows of emotions, the big eyes are embarrassing because they can create various expressions.

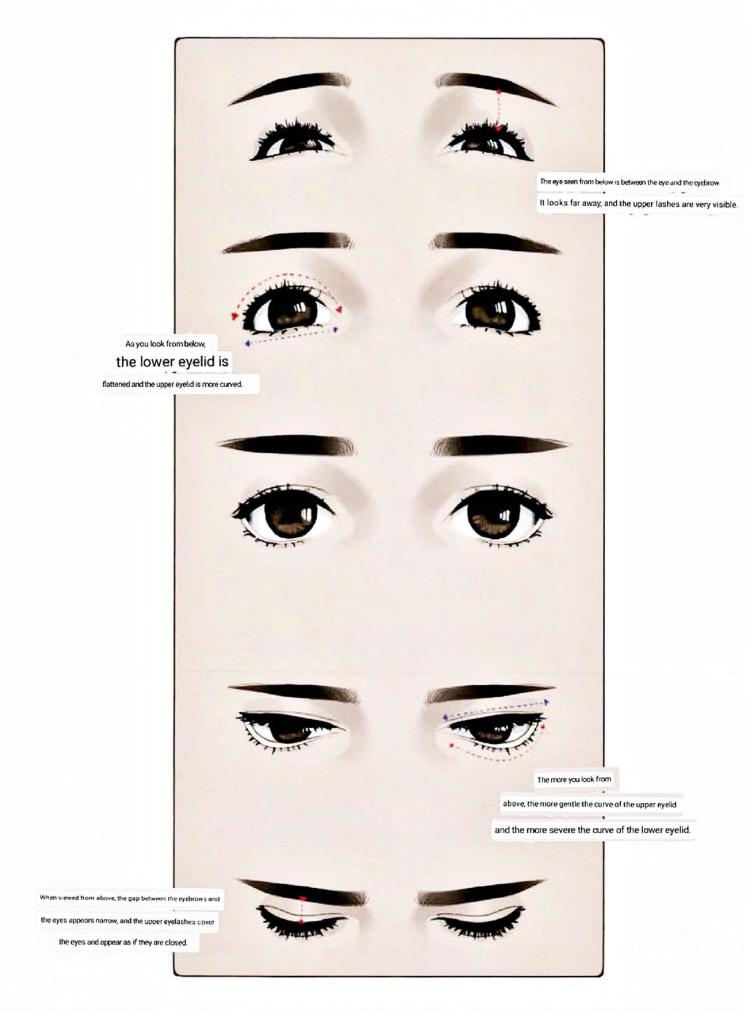
Conversely, the small, slender eyes that are open, are difficult to read emotions, conjuring up a mysterious and dreamy image.



You can add a simple makeup effect to suit the character's style to make it more attractive. Rather than drawing eyelashes one by one, you can adjust the thickness as if you drew an eyeliner, or draw shadows around the eyes to create a variety of impressions.

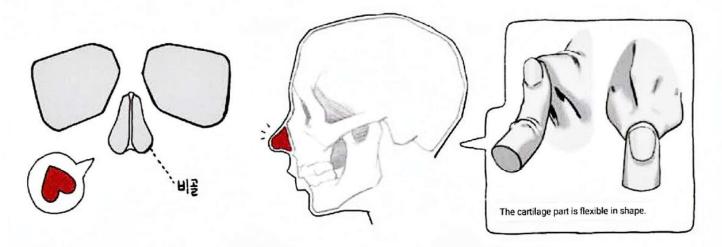


Let's look at the shape that changes with the angle. Both eyes are symmetrical, so care must be taken to avoid awkwardness when lifting angles.

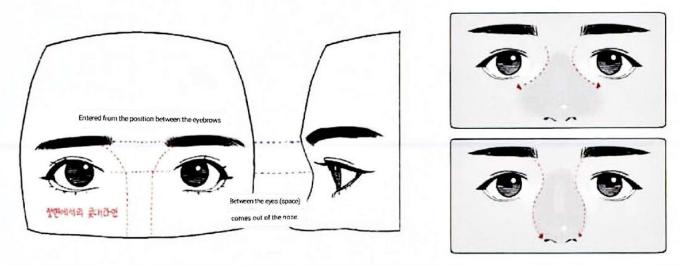


#### 3 nose

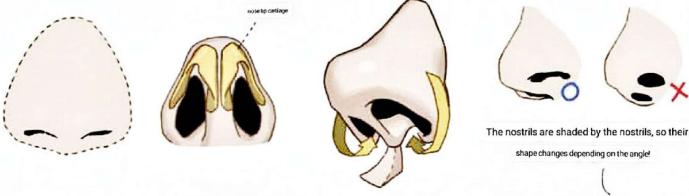
A pretty and sharp nose creates a lively and attractive impression. However, if you over-describe the form, it may feel burdensome and



The nose is a piece of cartilaginous tissue from the Yibula' of the skull. It goes in slightly from the position between the orbits, then the bridge of the nose comes out, and the side flows from under the eyes to the cheeks.

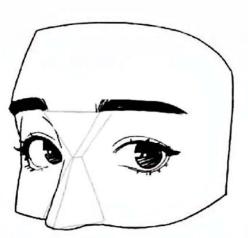


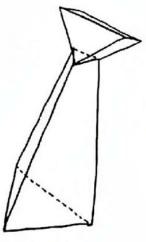
Looking at the side of the nose, the higher the bridge of the nose, the clearer the border of the side is, while the lower the bridge of the nose, the relatively natural flow.

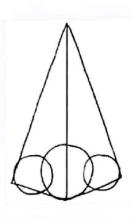


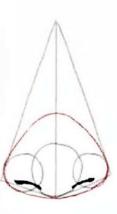
The tip of the nose has a triangular flow when viewed from the front, but when viewed from below, the nose looks like a triangle at the bottom due to the bifurcated cartilage. Both nostrils are rolled into the inside of the nostrils, and the cartilage in the center is split and connected to authentication.



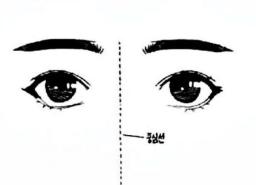








Let's find out the shape of the three-dimensional nose. Considering the aspect of the nose, you can think of a 'triangular pyramid'. Let's think of a shape with a small sphere inserted into the nostrils at the tip of the nose.



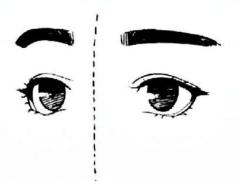




Draw the center line of the face first and position the nose.

Draw the bridge of the nose flowing through the forehead and the shape of the triangular nose.

Draw a slightly visible nostril. At this time, consider the size of the nostrils about the size of the space between the eyes.







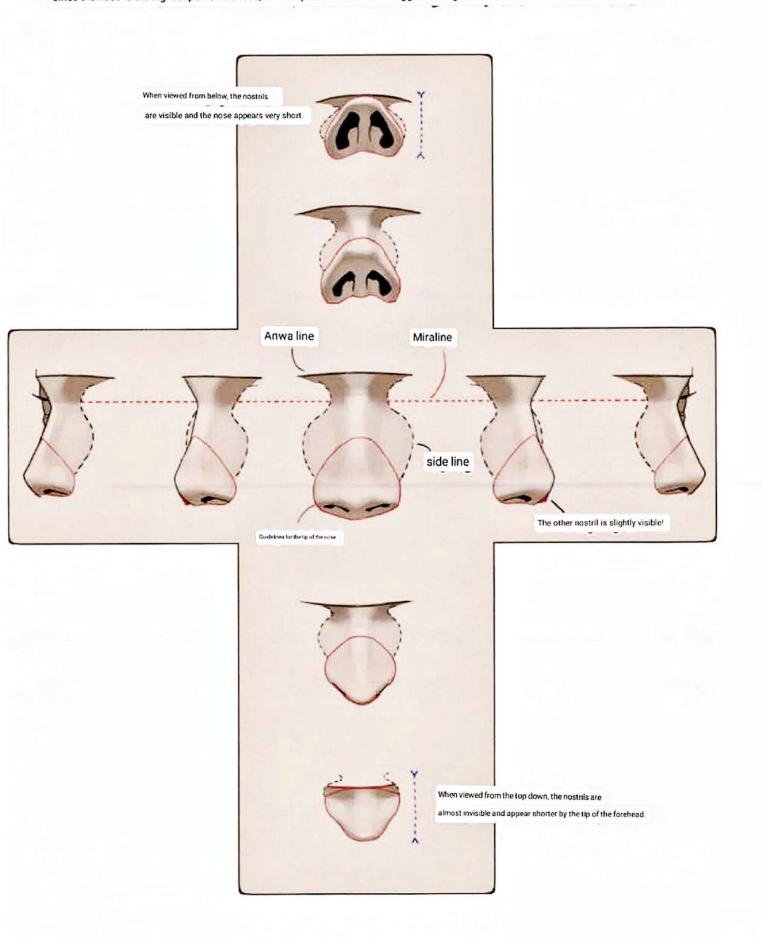
On the other side, take the center line that comes down from the mountain first.

After connecting the center line that changes depending on the height from the forehead to the tip of the nose, draw the shape of the tip of the nose.

Draw the part where the bridge of the nose crosses and the nostrils. At this time, let's check how exposed the side of the nose is from the other side.

### Let's find out the shape of the nose when viewed from various angles.

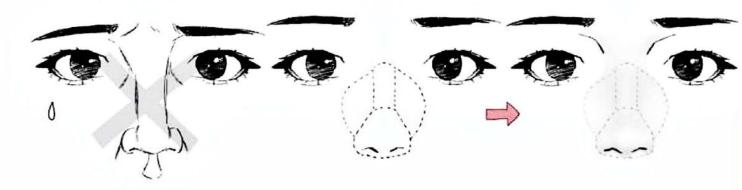
Since the nose is the highest part of the face, it is the part that shows the biggest change when viewed from various directions.





However, since the nose height and inclination of the nose are not so steep as for a small and pointed nose, if you take the shape as it is, it may not fit the character and feel awkward. Therefore, it is important to use the effect of 'omitting' appropriately to create the desired impression.





If you draw the bridge of the nose, the bridge of the nose, and

wrinkles like this, you get a rough and clunky feeling. This is because

it is not that deep or digging.

Therefore, after checking the area of the

nose, sides, and tip of the nose like this

Hold the shadow of the gently falling side.

Darkening only the relatively deep nostrils will soften the impression.



(A) When holding the bridge of the nose and nostrils



(B) When holding the side of the nose



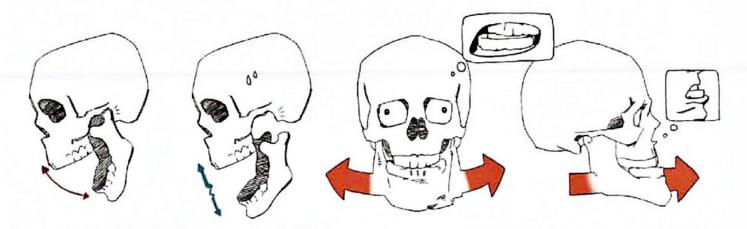
(C) If only the nostrils are held



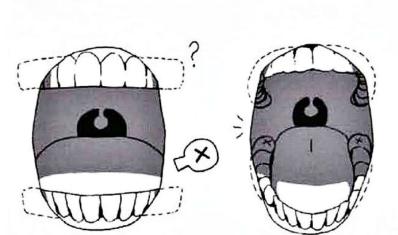
When you think of the mouth, thick and red lips come to mind first, but before that, you need to think about the structure of the 'temporomandibular joint' and 'teeth' that move the mouth. This is because if the jaw movement becomes awkward, the balance between the teeth and the mouth may be disturbed, resulting in awkwardness.

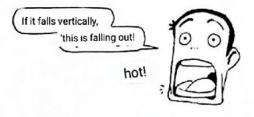


The jaw joint allows the mouth to perform movements such as chewing food or talking. The skirt you see when you open your mouth also grows from the upper and lower jaw bones, so let's take a look at the angle at which the lower jaw drops when you open or close it.

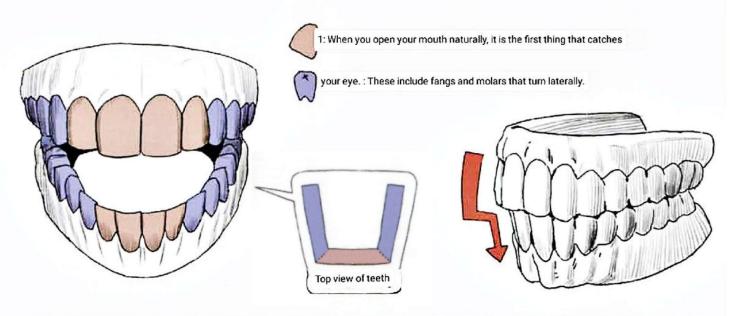


The lower jaw opens in an arcuate shape based on the part where the temporomandibular joint is located. In addition to opening and closing, slight movement is possible in the left, right, and forward directions.

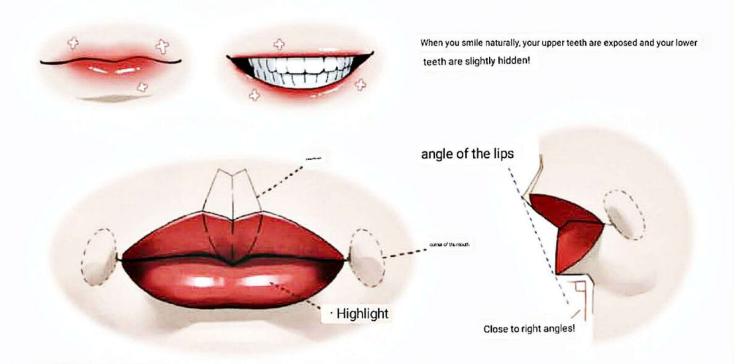




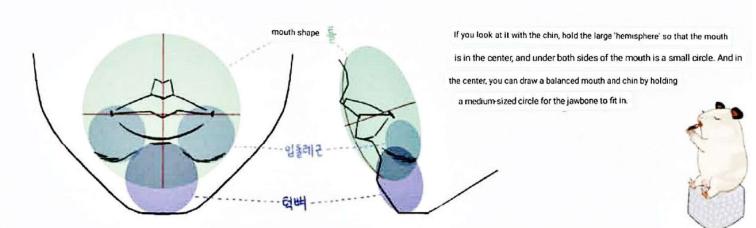
Therefore, when you open your mouth, be careful that the teeth turn in the direction of the



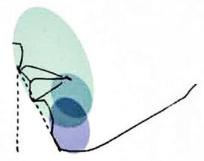
When you open your mouth, about 8 to 10 teeth are the first to stand out from the front, and based on this, they rapidly return to the side. Also, the upper teeth are usually slightly wider than the lower teeth, so they are biting the lower teeth.

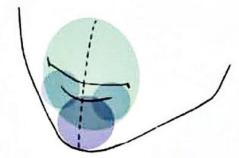


Let's cover our lips. As for the lips that open up and down, the chevron-shaped part of the upper lip connects to the minjung, and the lower lip sharply drops the connection angle to the ruck, creating a shadow of the lips. The upper lip slides inward and the lower lip slides outward, usually creating a 'highlight' on the lower lip.

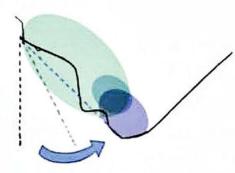


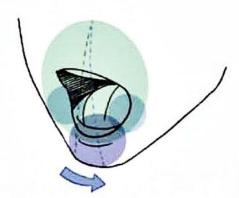
# normal lip angle



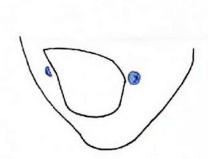


The angle of the lips when the mouth is open

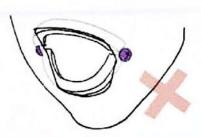




When opening the mouth, it opens based on the horizontal center line of the circular frame of the mouth.

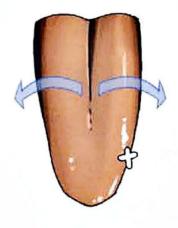






Because the child grows on the jaw, it moves relative to the jaw joint. Therefore, pay attention to the shape of the visible teeth as it is different from the corner of the mouth, which is the standard when opening the mouth.





The tongue is also a good material that is often used when moving or opening the mouth. Let's remember the shiny feeling because it unfolds based on the split line in the center and is always covered with saliva.

### Let's apply vibrant lip color!

The lips are an attractive part that gives a variety of moods to the character's impression in a subtle way. While harmonious and lively lips make the character stand out. A lip tone that doesn't blend well with your skin tone makes it look floaty or even burdensome. Therefore, tinted lips should consider harmony with the skin tone.





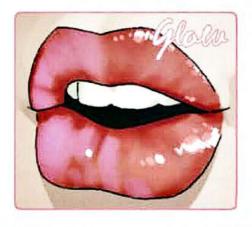








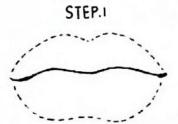
If you have a yellowish tinge or a yellowish tint on your skin tone, use an orange or burgundy color for your lip tone. If your skin color is pink or red, melt the pink color on your lips to harmonize your lip color and skin color.







Depending on the gloss level of the lips, different feelings can be expressed. Shiny and moist lips give a lively and youthful feeling, and thick, low gloss lips give an atmospheric and vivid feeling.



Be careful not to hold the outline of the lips too naked.

STEP.2



When the light falls from above, the upper lip is slightly darker than the lower lip.

STEP.3

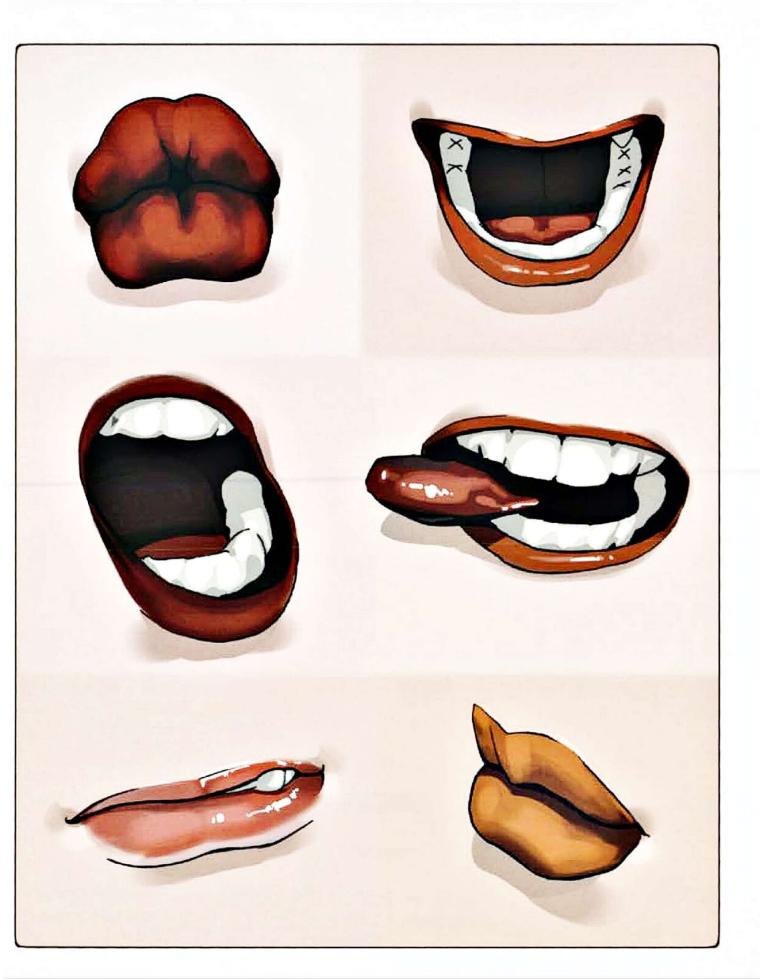


Use a red tone that enhances complexion and pay attention to wrinkles on the lips.

Let's draw while looking at the various mouths!

Although the shape of the mouth can be self-diagnosed through a mirror. When expressing lip gloss or color tone,

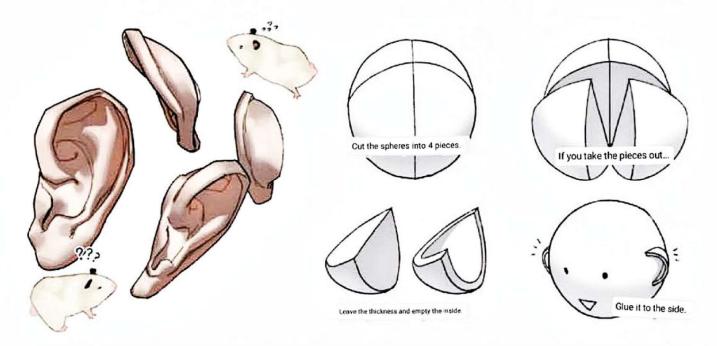
Considering your personality and mood, it is one of the best ways to refer to makeup related materials.



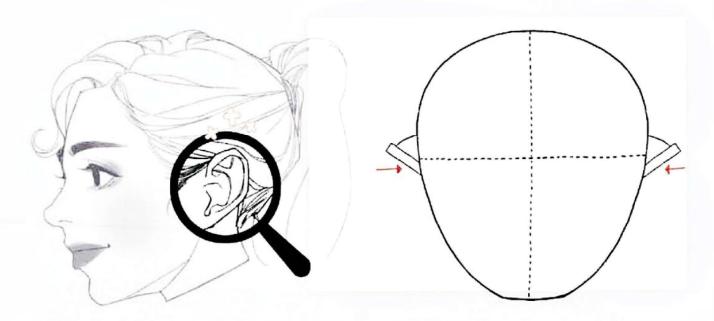
#### 23 Because

the ears are less conspicuous compared to the eyes, nose, and mouth, there are relatively few opportunities for observation, making it difficult to express them.

Moreover, it is quite difficult to see the inside of the cuff circumference from each angle. Therefore, first of all, you need to know the basic shape of the ear.

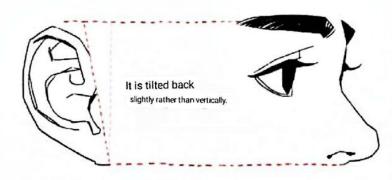


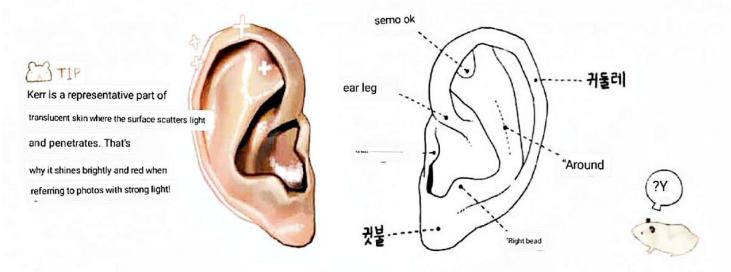
Since the ear has to detect sounds coming from the front and the side, you can think of a shape that is hollow after dividing a sphere into 4 equal parts.



So, in fact, the angle at which the inside of the ear is clearly visible is closer to the side. The reason is that the ears are not attached at right angles, but are turned slightly backwards and covered up.

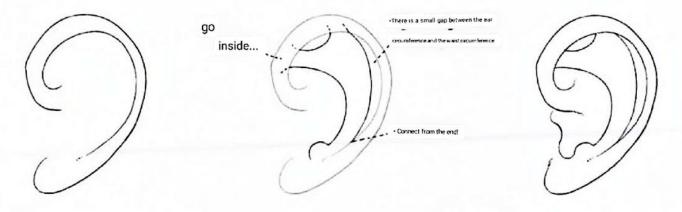
The ear has an area equal to the space created by drawing a straight line from the position of the eyebrows and nose to the side.



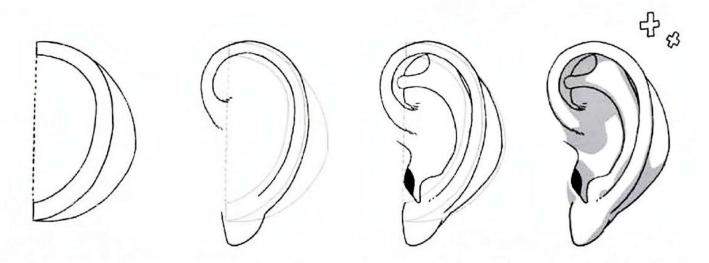


Let's look at the inner side of the ear. The 'ear circumference', which is the outer part of the ear, returns like a question mark from the 'ear circumference leg' above the ear beads to the 'ear lobe'. The

first Maddulei that stands out from the inside of the curb circumference is located in the shape of a Y from the 'triangular concave' at the top to the 'right bead'.



- ① First, grab the question mark shape.
- ② Set the position of the 'y' shape.
- Draw the legs and ear beads around the ears and you are done!





The girth is slightly

more 'protruding'



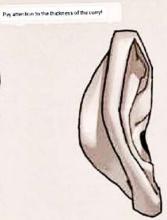
Let's take a look at the shape of the ear at each angle.

Since the shape of the ear from the back or from above or below is not very difficult, where the inner side is not visible, it is easy to approach by drawing the basic frame shape of the ear first and then adding the 'match circumference' in the case of the angle where the inner side is visible.



The front looks a little slanted

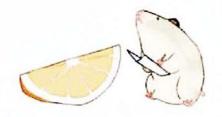




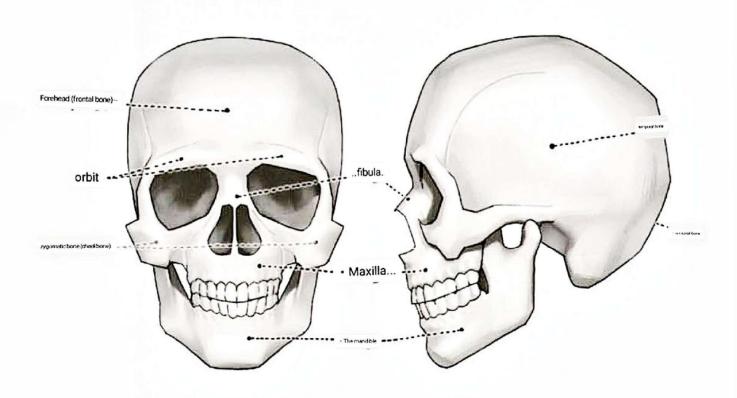




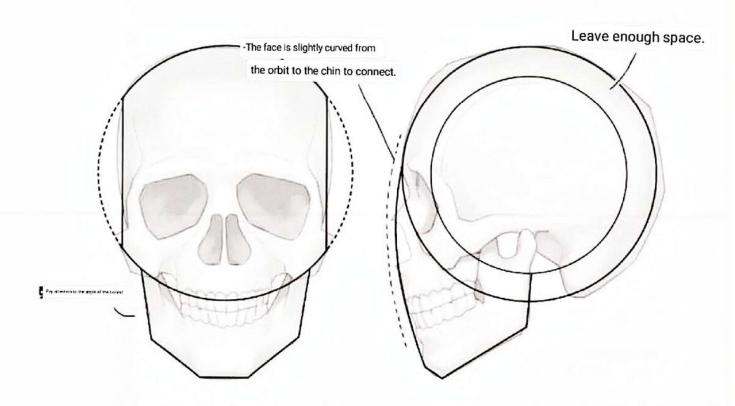




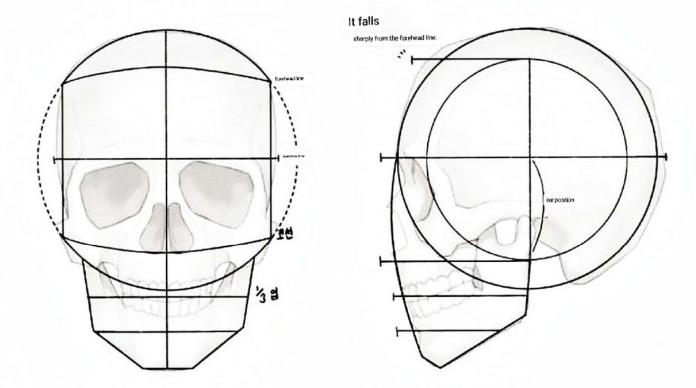




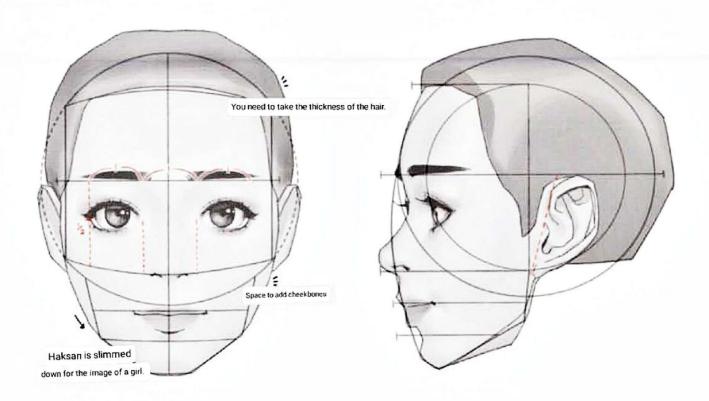
Let's draw the head. Since the head mostly follows the shape of the skull, it is necessary to recognize the shape of the skull briefly.



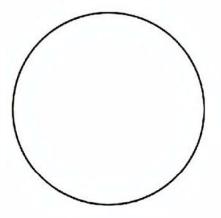
Let's make the head of this skull with a much more simplified figure. Replace the skull, where the forehead, orbit, fibula, and maxilla are located, in a 'sphere' shape, but since the side (temporal bone) is flat, cut it in a circle to make a cross section. After that, you can connect the chin line to create an overall head image.

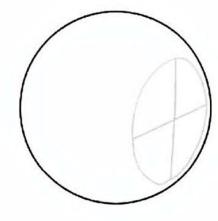


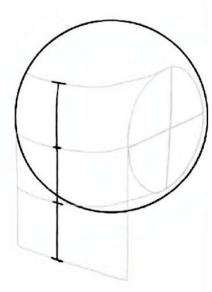
Let's take a look at the proportions of features that can be seen in the skull. The circular cross section of the side is divided into four equal parts in the shape of a cross, and the upper extension line is the forehead, the center extension line is the eyebrow (orbit), and the lower extension line is the nose. The mouth is placed in the position of the nose and chin.



The space between the eyes is the size of one eye, and the nose is the width of one eye. The eyes are located midway between the nose and the eyebrows, and the ears attached to the side are located slightly skewed to the center line and lower line of the section.



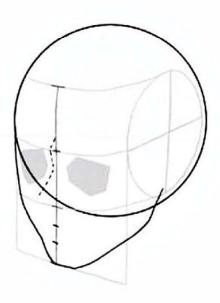


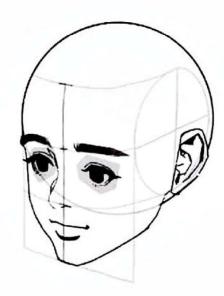


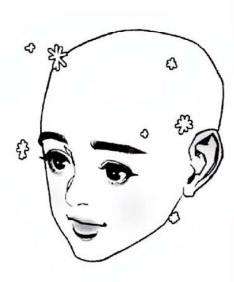
1. Draw a sphere.

Cut the sides and cut into four equal cross sections.

Take the center of the face and divide it into thirds to make a guideline for the features.







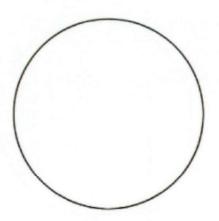
 Correct the center of the nose and draw a line and orbit.

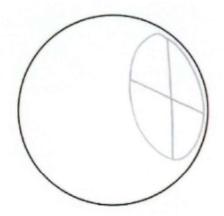
Draw the features one after the other according to the guidelines.

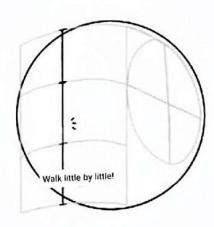
6. Erase and clean the underline.



## Half-sided head viewed from below



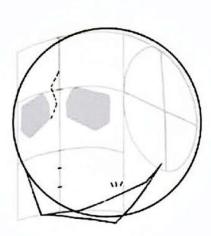


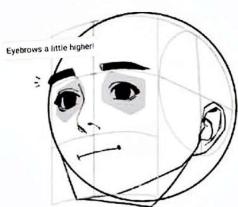


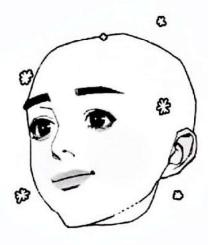
1. Draw a sphere.

2. Cut the sides and make a cross shape Four equals.

Take the center of the face and divide
 it into thirds to make a guideline, but
 make it longer toward the lower chin.







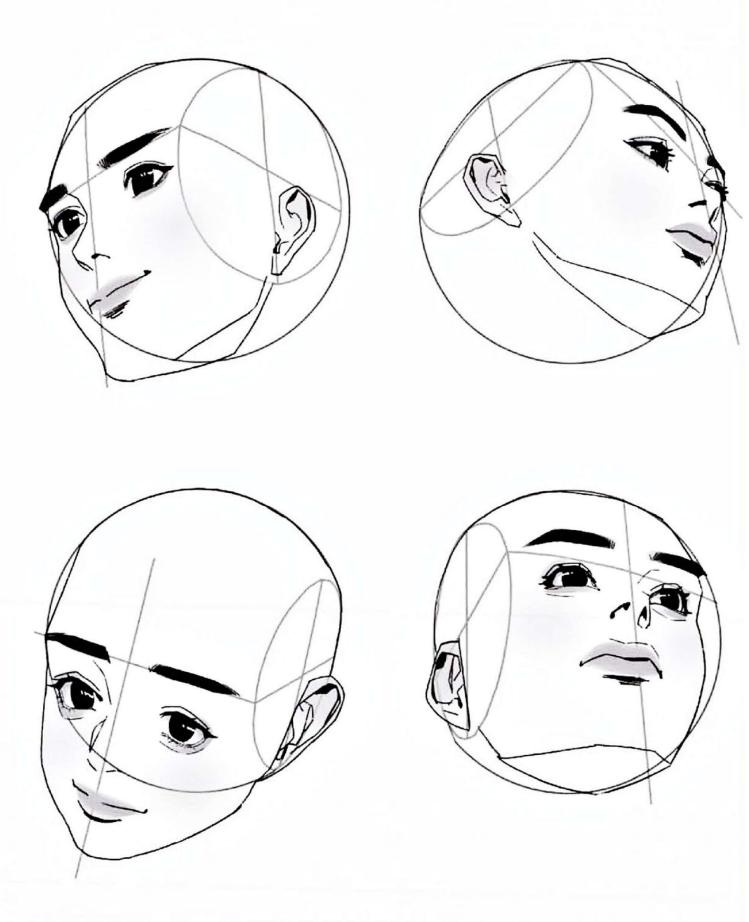
4. Correct the center of the nose and draw the lucky line and orbit. Note that the space under the chin is slightly visible at this time.

Draw the features one after the other according to the guidelines.

6. Erase and clean the underline.

Let's draw a head from various angles and practice adding features. When drawing an

angle from above or below, be careful that the part close to the field of view looks bigger and the part farther away becomes smaller and the width also narrows.

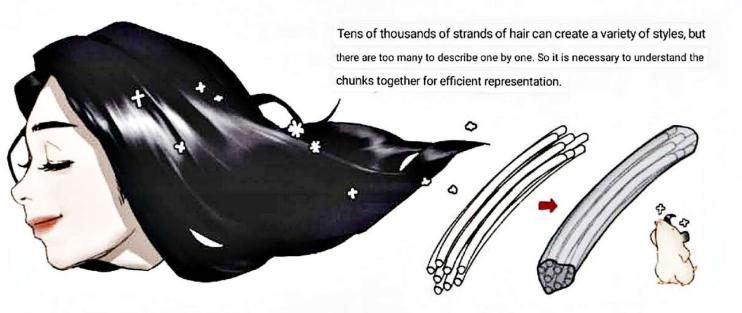




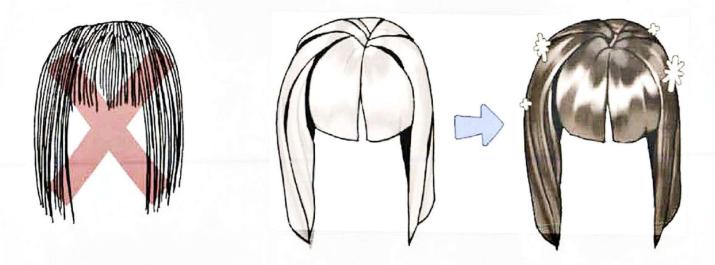
## Let's draw hair!

Choosing a hairstyle that makes your character more stylish is very important. You can create a variety of styles by drawing hair that suits your face shape or features. It is not easy to express delicate and elegant hair, but if you draw a few in order, you can convincingly describe a wonderful hairstyle.

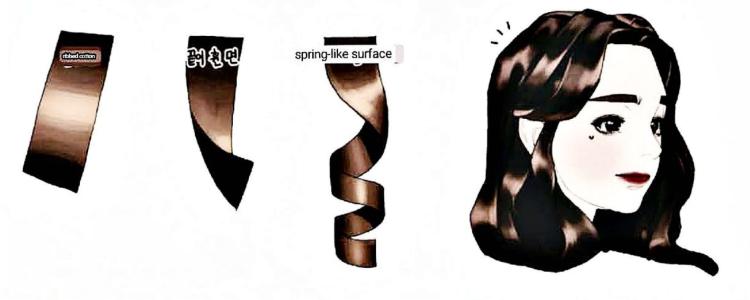


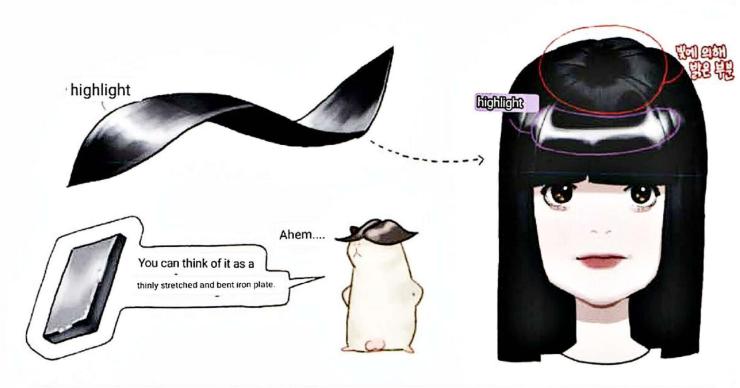


If you draw all the hair with lines, the overall feel of the hair is fragile, and it feels stiff and unnatural, so it is recommended to style the hair with 'cotton' first and then describe it.

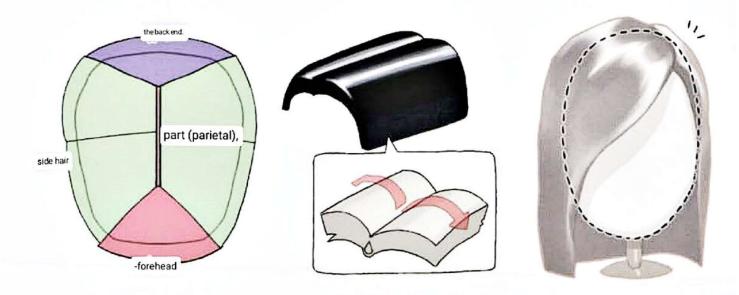


In this way, you can create various styles by twisting or twisting the side of your hair, but you need to be careful when creating waves or blowing in the wind in addition to long straight hair that falls straight from the crown.

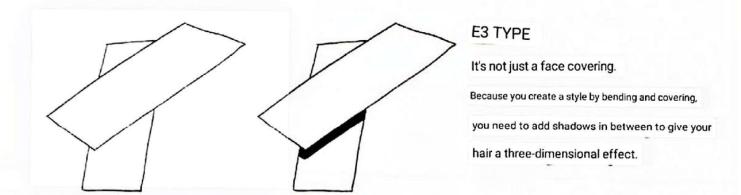


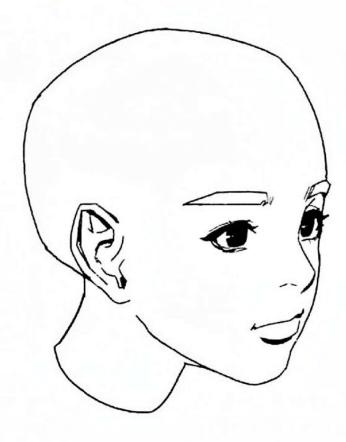


Hair contains oil, so the areas that are reflected by the light are shiny. The position of these 'highlights' changes depending on the observer's position, as the light falls from above and when viewed from the front, the highlight appears around the middle.



If you check the crown from above, the hair grows as if it spreads out on both sides like a book based on the part, so you need to draw a little thickness on the head.





Draw a round head first.

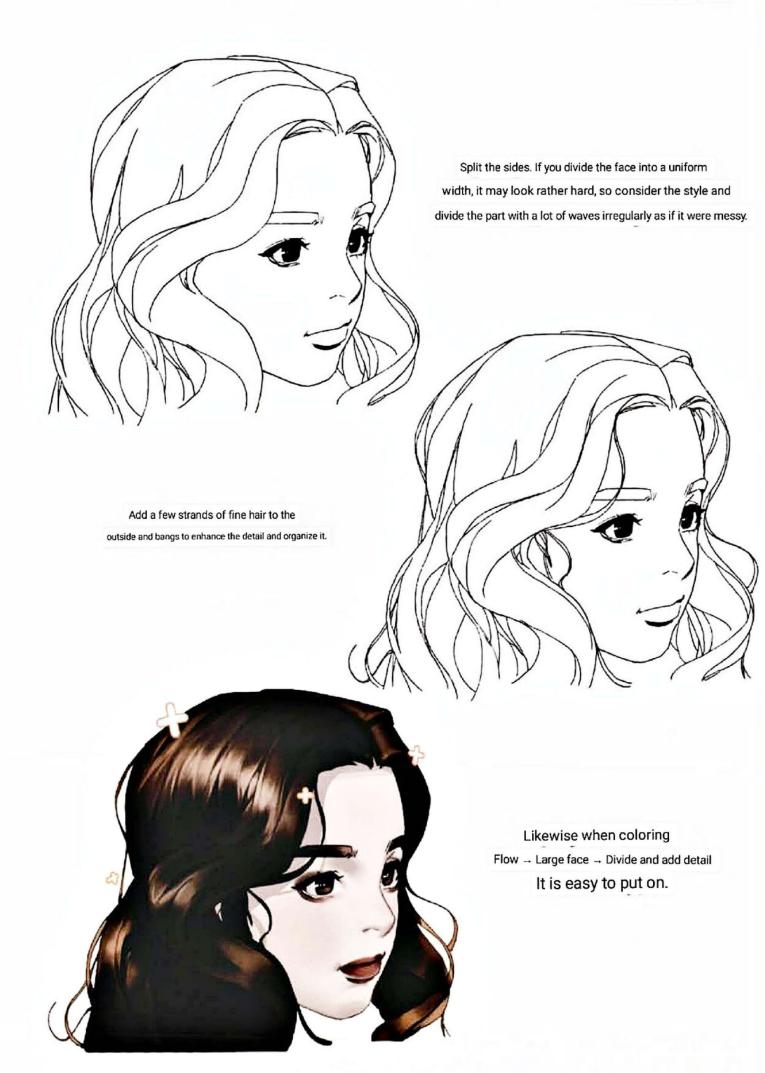
Position the forehead line where hair grows, sideburns that are bent in steps, and the crown or part of the head.



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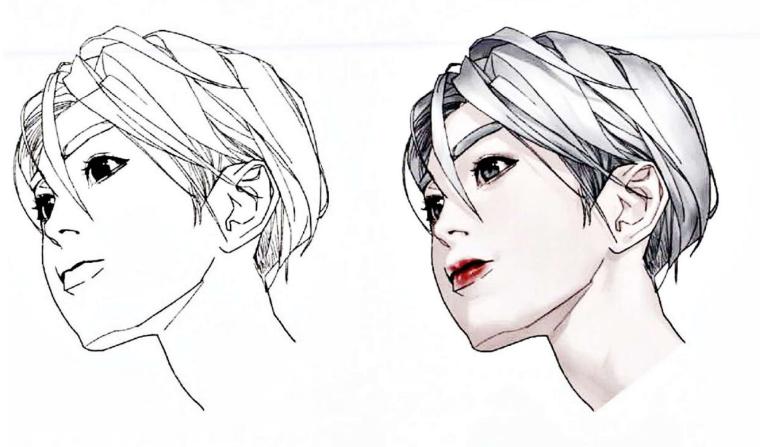
After thinking about the flow of hair starting from the part, grab the side. At this time, it is necessary to arrange them in

large order so that there is no confusion.



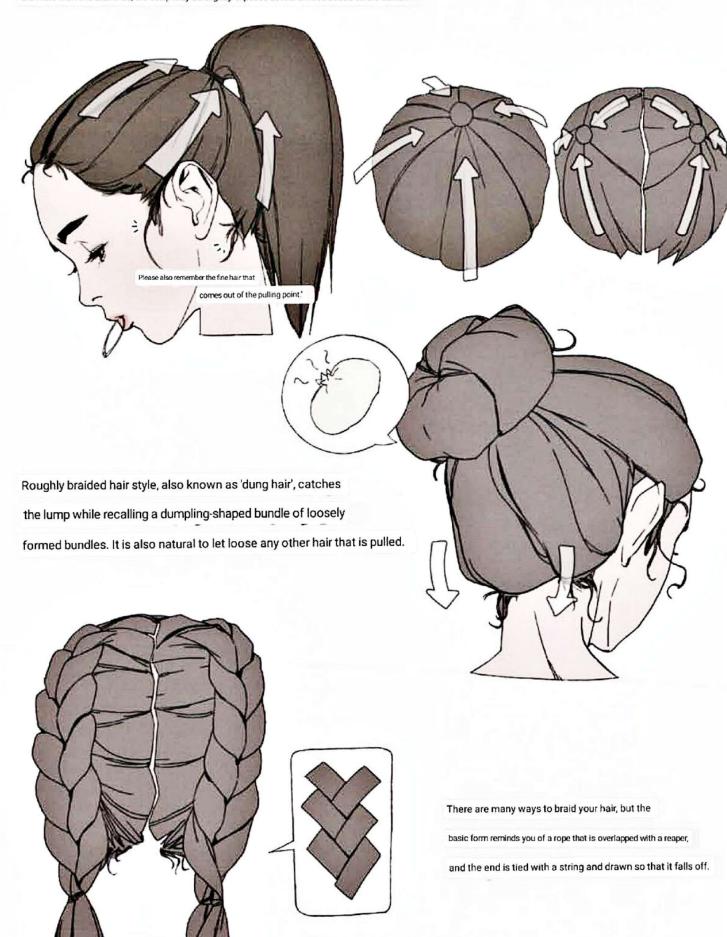


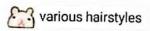
When drawing the short hair style, draw the head in the same order and follow the flow, grabbing the larger side first. At this time, if the inner hair is reflected, draw the covering hair and length separately.



When splitting the sides, you can create a more natural and voluminous hair style by adding a side that covers the sides at an angle to match the flow. The more surfaces that are covered and covered, the more natural it looks.

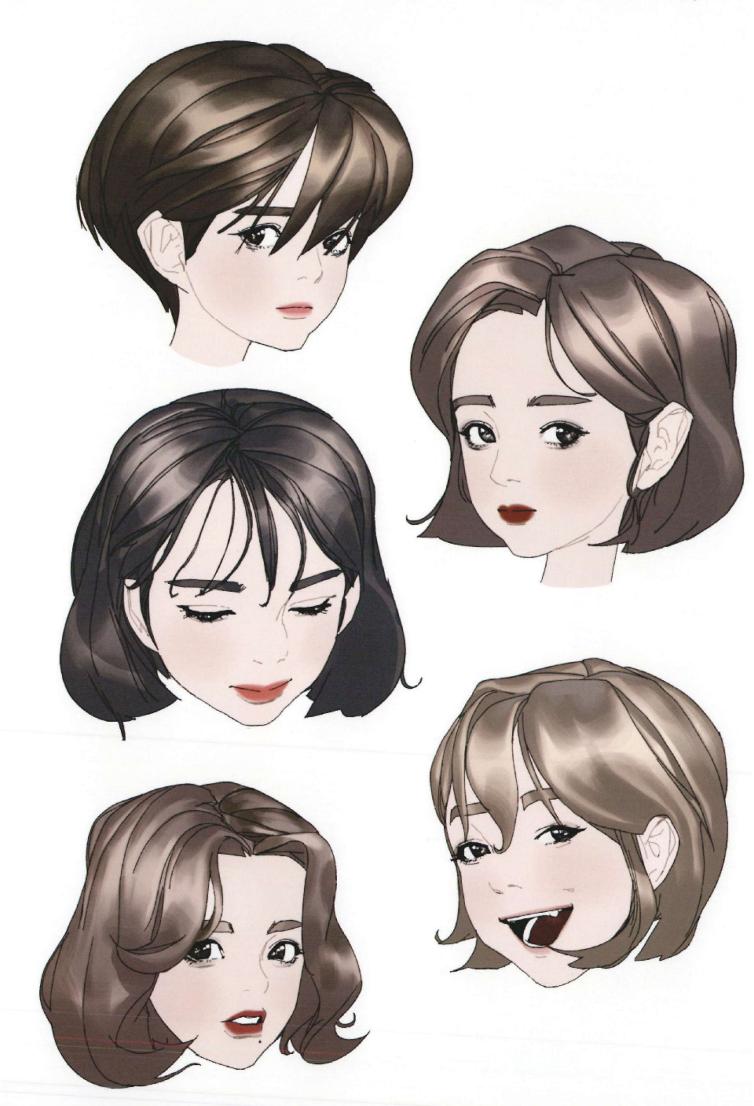
When you tie your hair, the flow converges because it pulls the hair in the direction it was tied. If it is one branch, you can collect it in that direction. If there are more than two branches, the scalp may be slightly exposed as it is divided based on the center.





In addition to simply the difference in length, curl, volume. You can solve the change of style by utilizing a wide variety of factors such as the presence or absence of bangs. Therefore, it is important to identify and match the style that best suits the character.



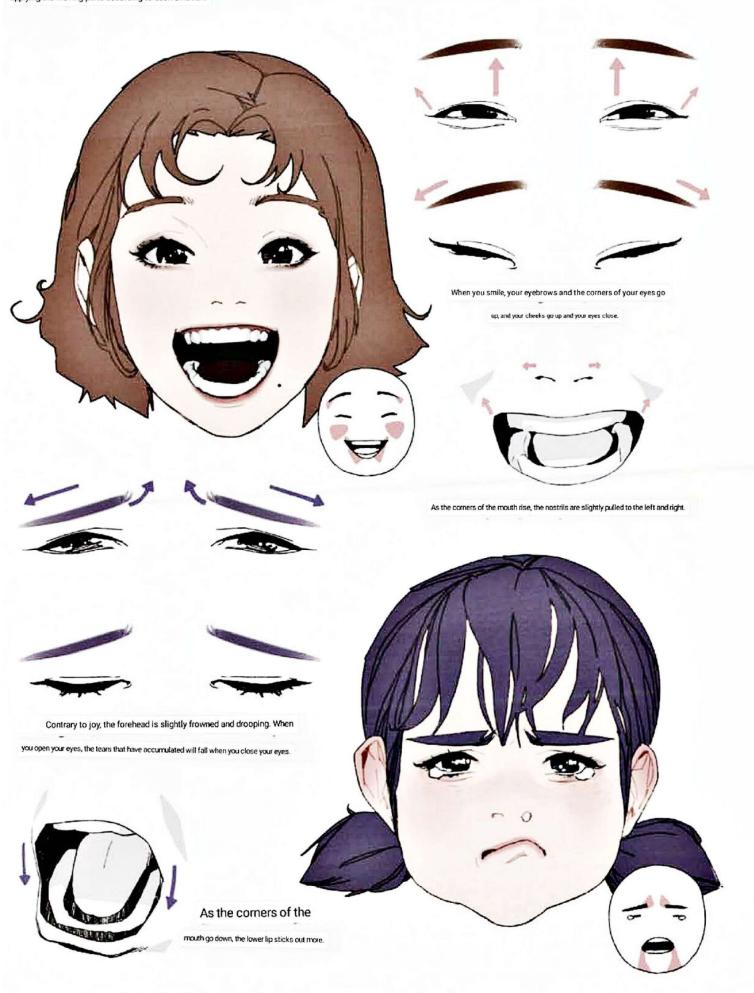


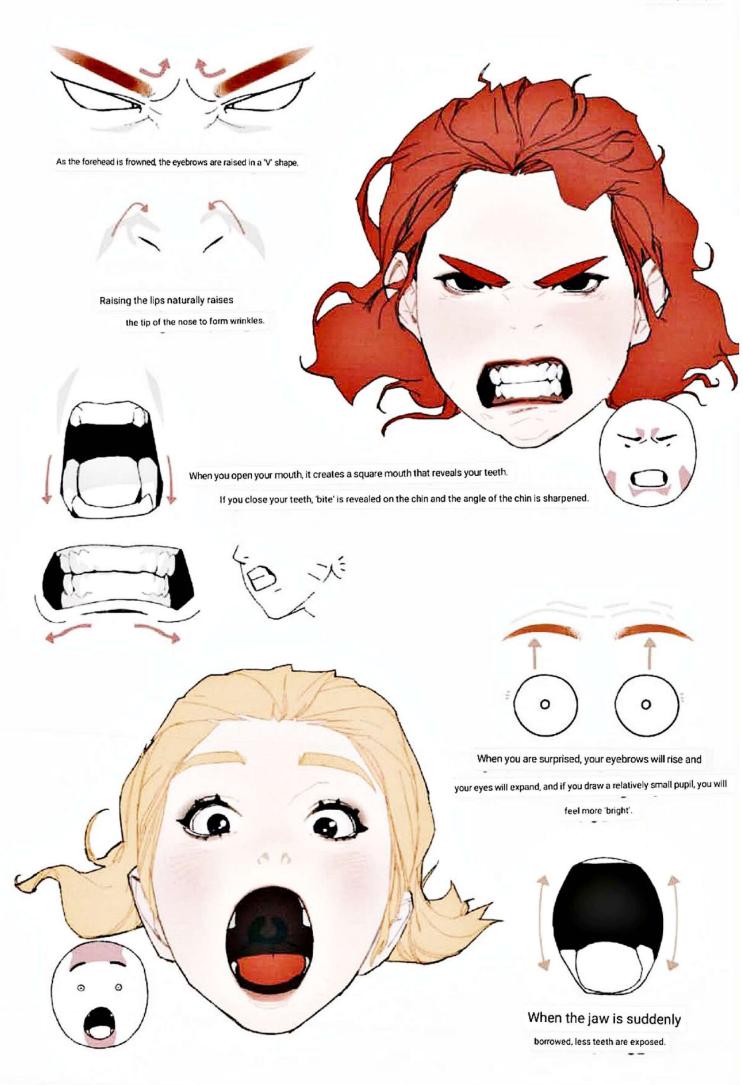




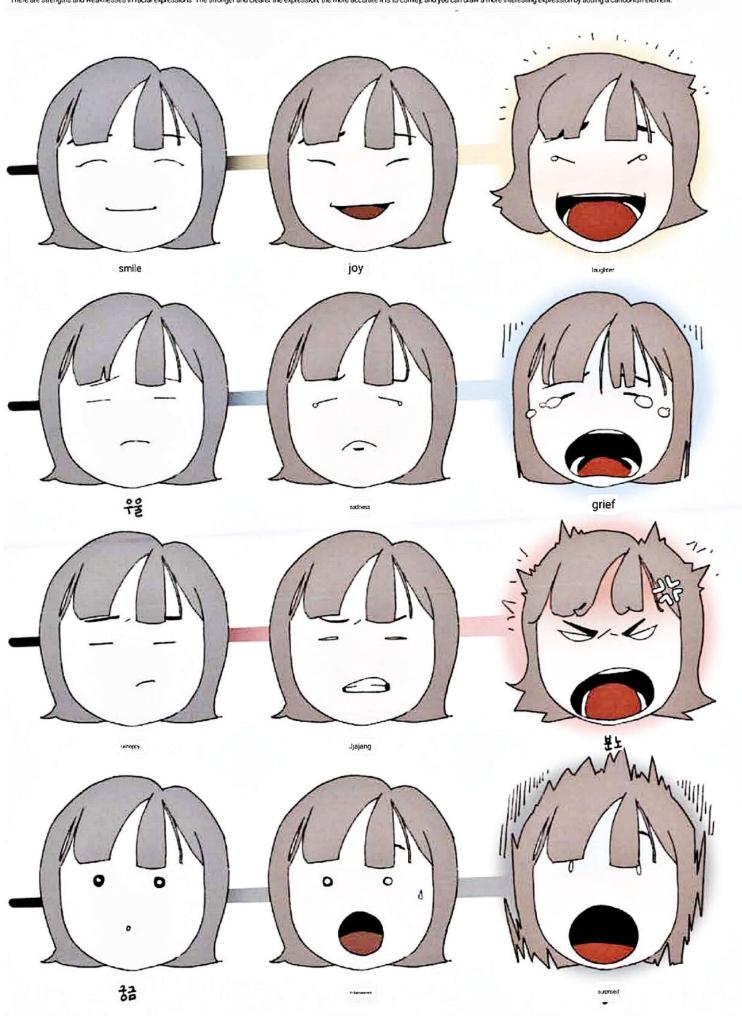
Let's draw an expression that vividly captures various emotions. Frowning the forehead or raising the corners of the lips,
etc. The character's emotions are expressed using the muscles of each part, and you can create more diverse expressions by identifying and

applying the moving parts according to each emotion.

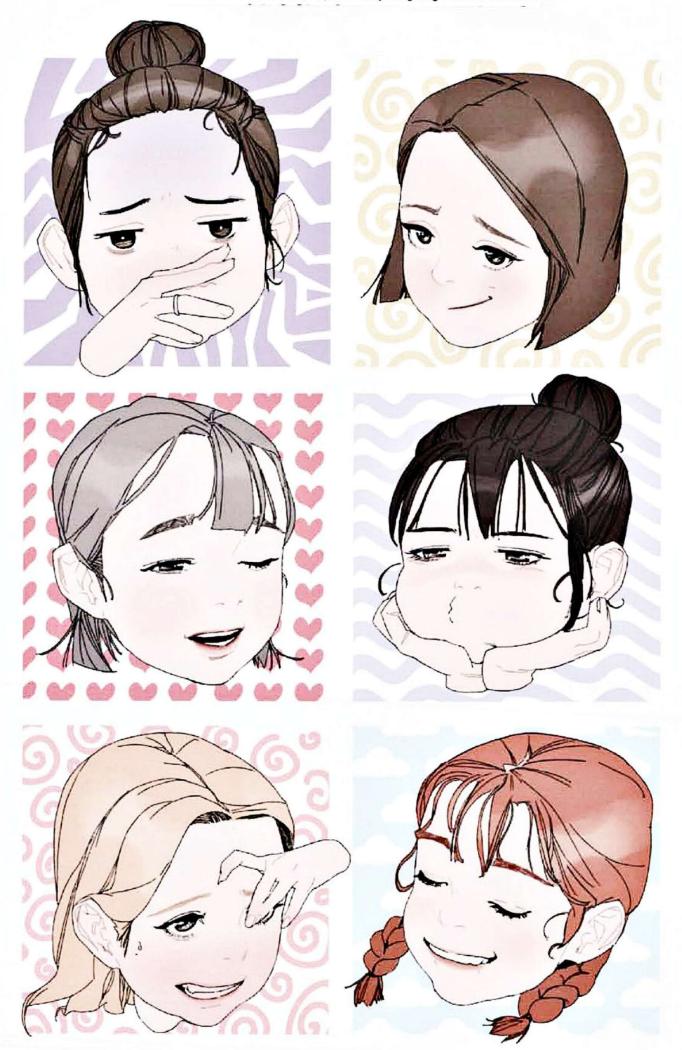




There are strengths and weaknesses in facial expressions. The stronger and clearer the expression, the more accurate it is to convey, and you can draw a more interesting expression by adding a cartoonish element.



In addition, let's draw a funny expression by imagining various emotions.





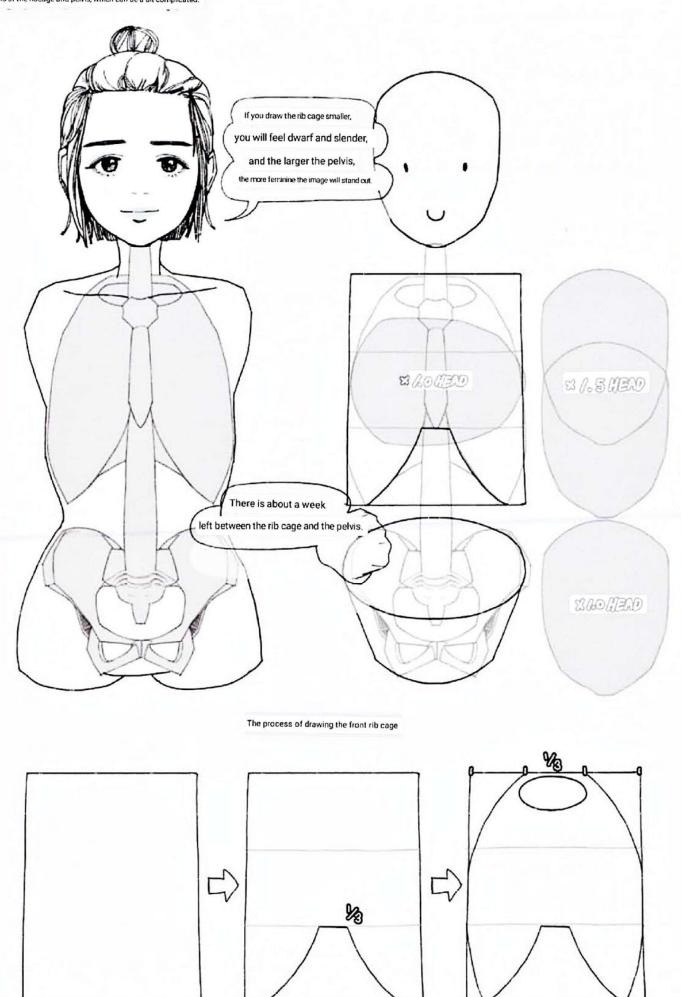
When drawing a 'woman' character, it is very important to think about the body shape. When

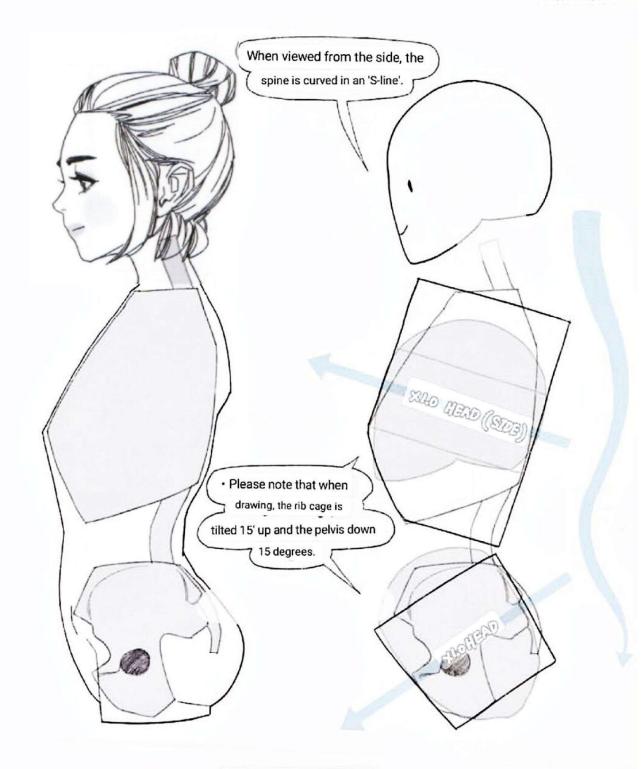
drawing characters of various body types, if there are standards according to them, you can draw characters in a much more savvy way, right?

From here, we will look at the skeleton of the character, the position of the muscles, and the connection, and establish a standard for drawing various body types.

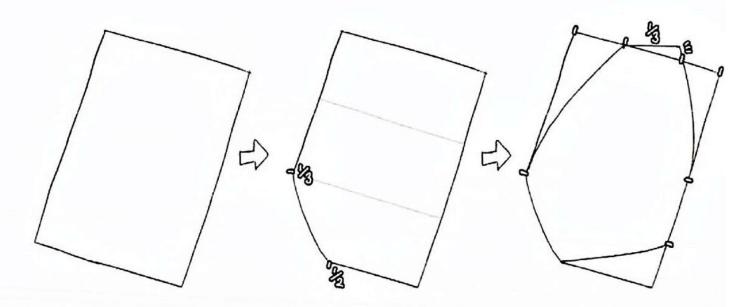


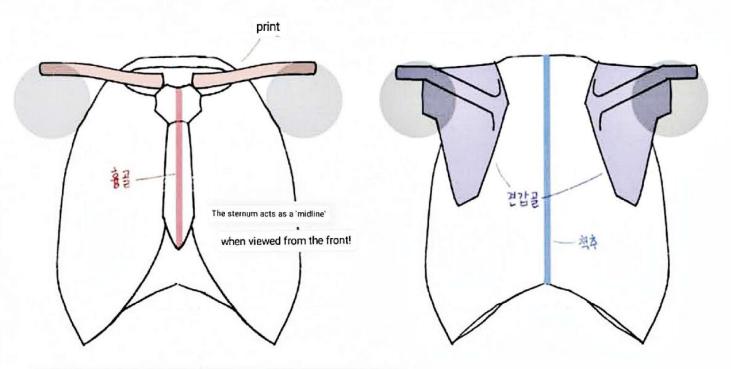
First, let's find out the ratio of the spine, rib cage, and pelvis, which are the main skeletons of the upper body. The cost is based on the head, and it is recommended to figure out the proportions of the ribcage and pelvis, which can be a bit complicated.





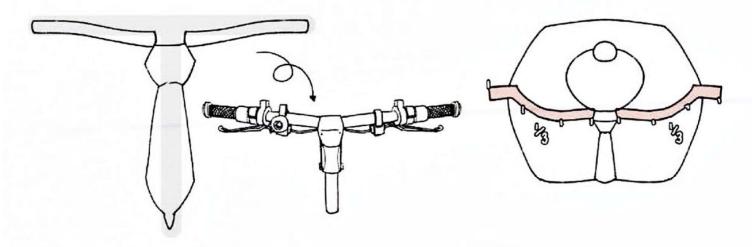
The process of drawing the rib cage on the side



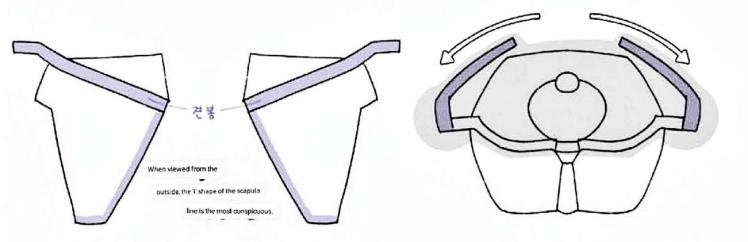


The clavicle and shoulder blades are important landmark bones in the upper body. The

two bones are connected to the arm bones to form the shoulder joint and assist in movement.



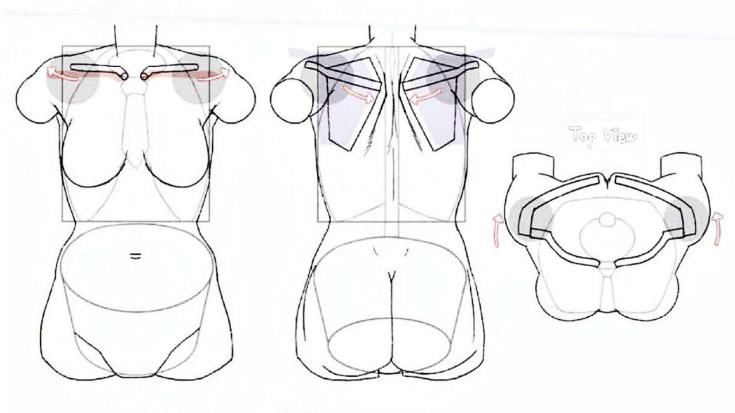
When viewed from the front, the clavicle looks like a 'T' shape like the handle of a bicycle. When viewed from above, it is positioned slightly bent toward the back and is connected to the scapula at the back.



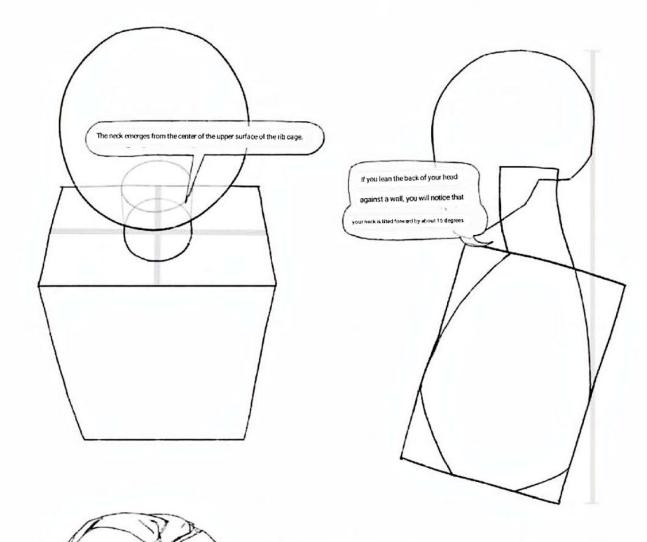
Since the shoulder can move in various directions independently of the rib cage, let's use the joint figure substituted with a 'sphere' to position the shoulder and find out the change in the angle of the clavicle and scapula moving accordingly.







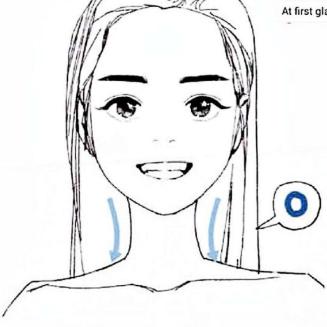
The neck starts from the 'suprathoracic gate' of the rib cage and connects to the occipital neck, and when viewed from the side, is slightly anteriorly curved.



At first glance, this area is not difficult at first glance, but as it is directly connected to the

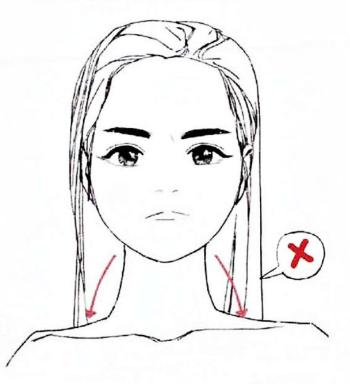
face, even a small difference can make a significant difference, so

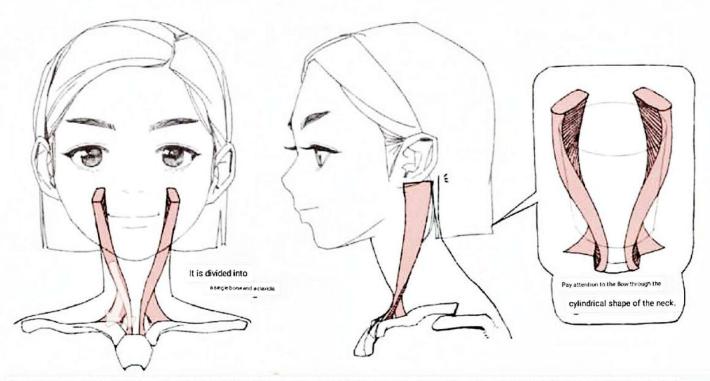
it is necessary to look into it a little more closely.



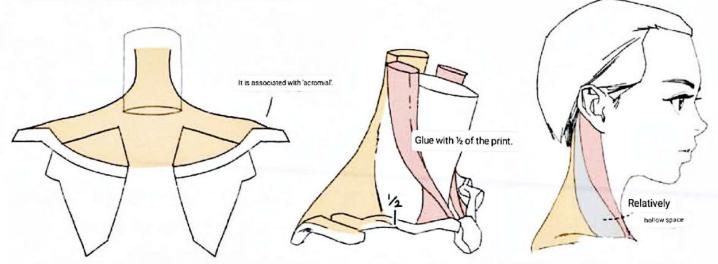
As such, when it is thick or thin that does not match the character, or when the flow

to the shoulder flows in the opposite direction, the awkwardness is conveyed immediately.

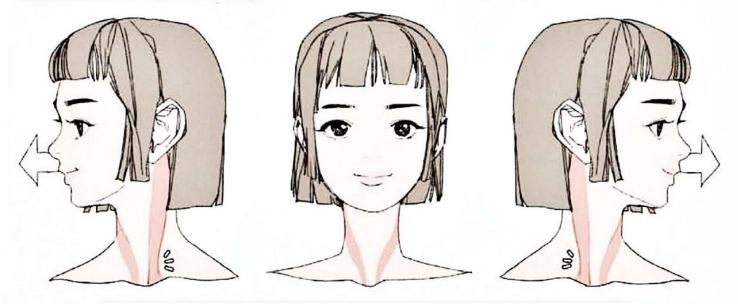




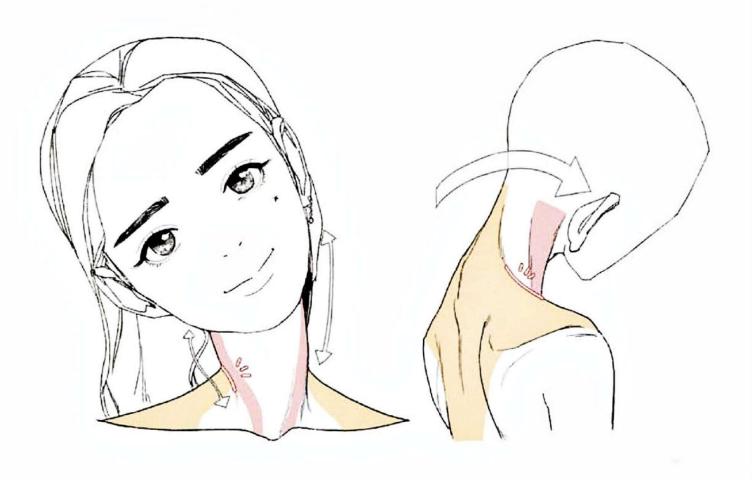
Recognizable muscles in the neck and shoulders include the oblique and trapezius muscles. Among them, the oblique muscle is connected from the clavicle to the back of the ear, and when viewed from the front, it looks like a bent "V" shape.



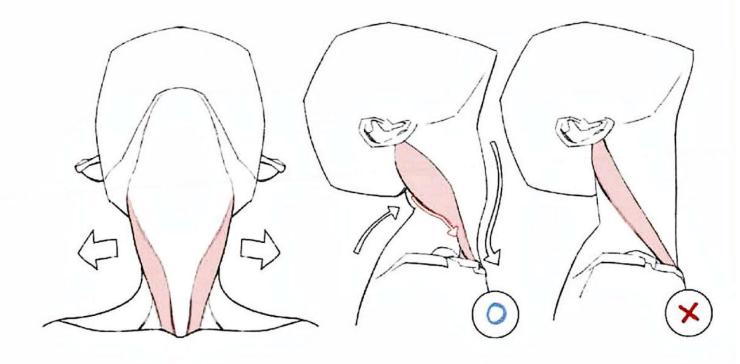
When viewed from the back, the trapezius muscles that cover the entire shoulder are connected as If wrapped around the collarbone of cotton from the back of the neck. Therefore, when viewed from the side, a triangular depression is created due to the difference in the position of the oblique muscle and its connection.



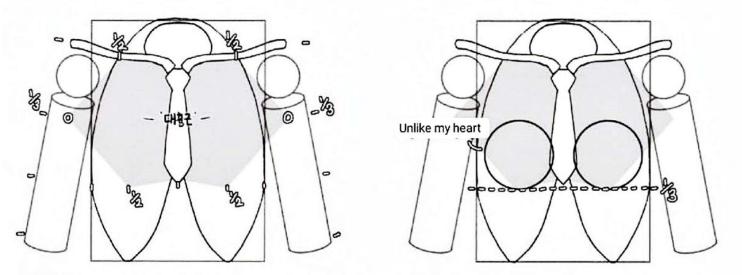
If you move your head left and right, the outline of the oblique muscle, located in the opposite direction to the direction of turning your head, will stand out.



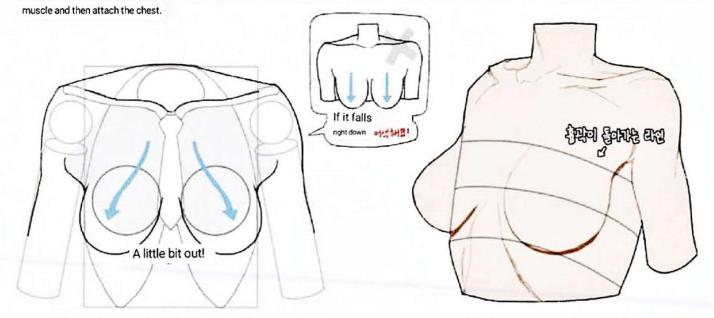
As such, when the oblique muscle moves the neck, the muscles on the left and right pull or shrug each other to maintain balance.



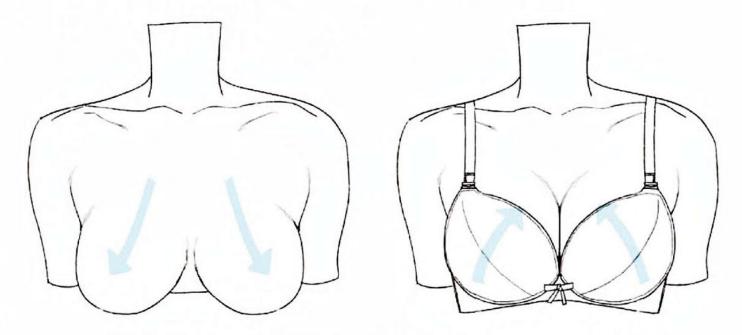
When you put your head up, the oblique neck muscles are teased by the trapezius muscles and spread to both sides, and the fold is the thinnest from the side.



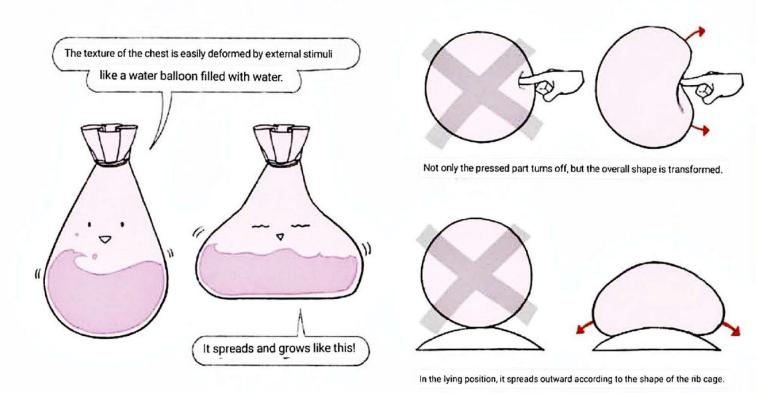
Since a woman's breast is mostly made of fat, it is attached to the underlying pectoral muscle (roughly). Therefore, first grasp the area of the chest



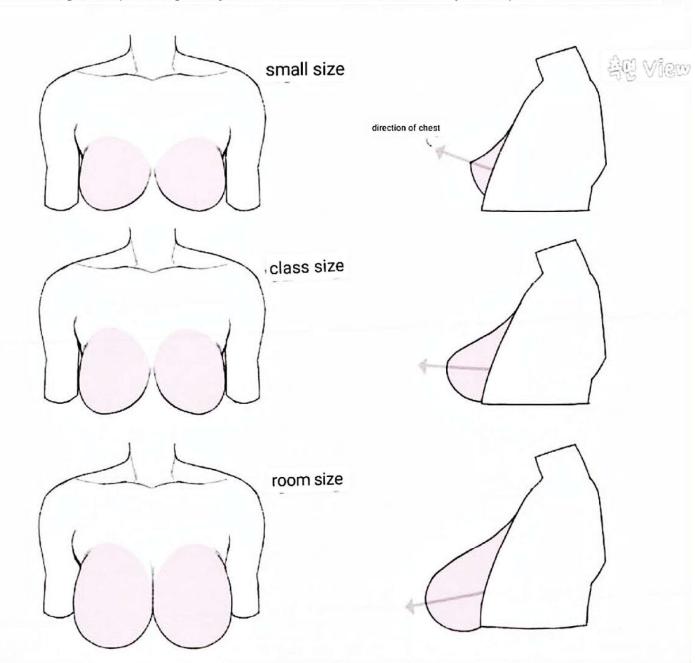
In this way, first, the area where the chest will come out is first drawn, and then the chest that falls down is drawn.

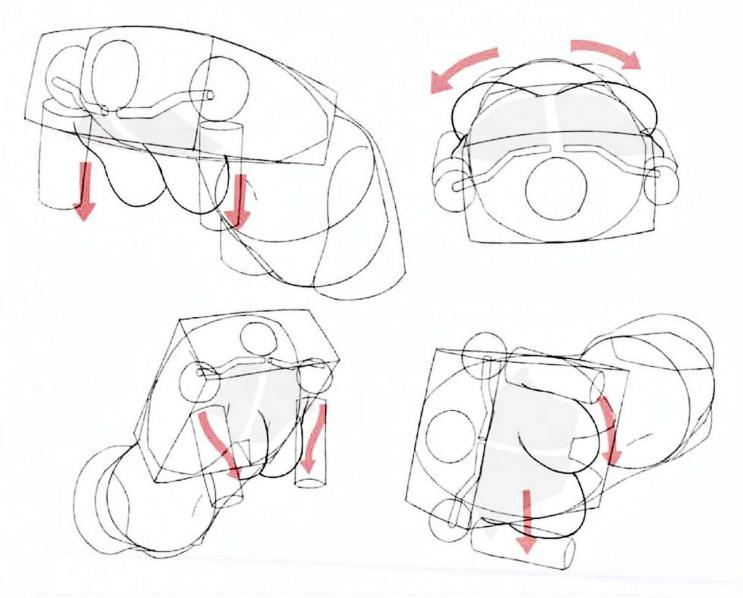


Since it is usually spread outward, you need to wear underwear that gathers the breasts inward to create a 'Y' shape.

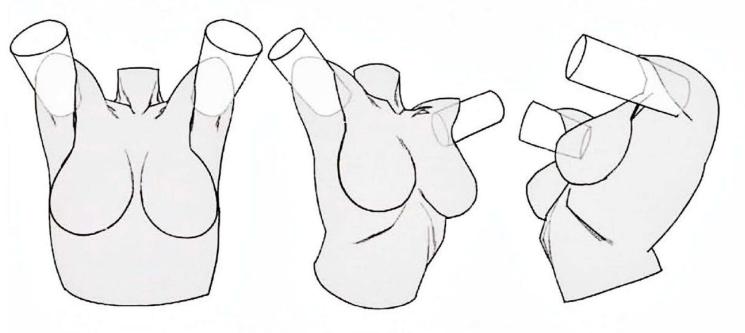


As the size changes, the shape also changes little by little. As the size of the breast increases, the ribs deepen and the point of the chest tilts downwards.

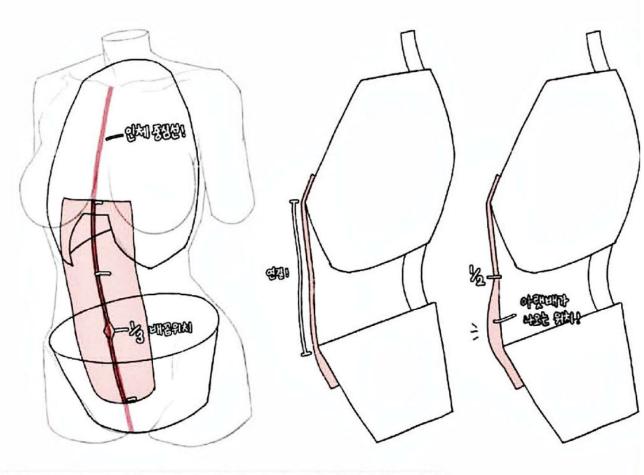




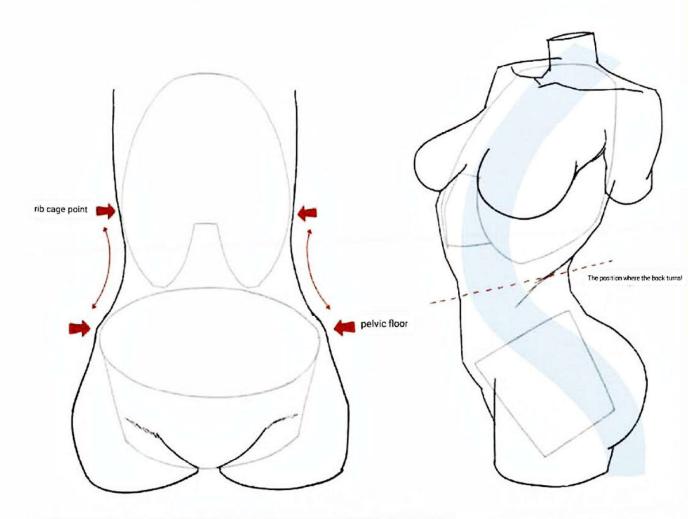
Because it is pulled down by gravity, the shape of the chest can be squashed or pressed when the upper body is bent or tilted.



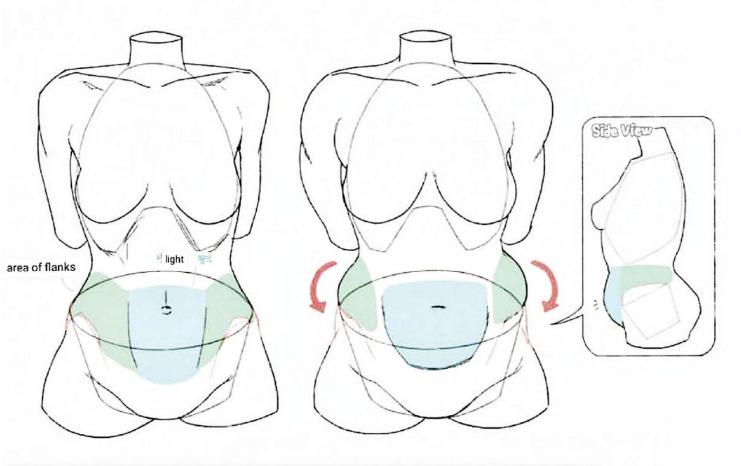
Also, since the pectoral muscle is connected to the arm, the chest may be lifted or gathered together when the arm is moved.



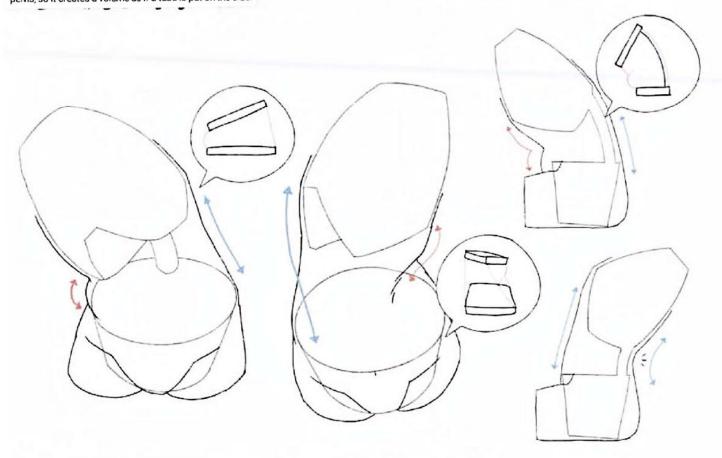
Abdominal muscles are long connected from the rib cage to the pelvis to form the centerline of the front of the upper body like the sternum. The navel is located at the point from below, and the 'belly belly' protrudes from the lower area by dividing it in half.



Because of the relatively wide pelvis, the waist sometimes goes in from the front, but in reality, the waist looks thinner from the side than from the front, so the 'S' line is more prominent when the waist is twisted.

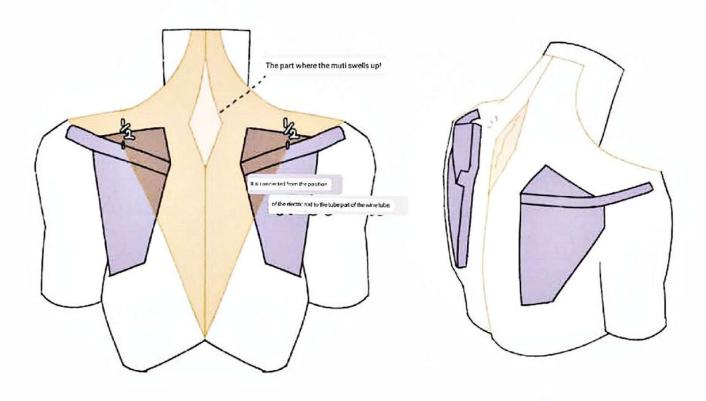


If the abdomen has a little fat, the part where the pelvis is located does not attach much fat, but rather the fat attaches over the ridge of the pelvis, so it creates a volume as if a tube is put on the side.



When the waist is turned sideways or bent, the side is folded in the direction of movement and the opposite side is pulled.

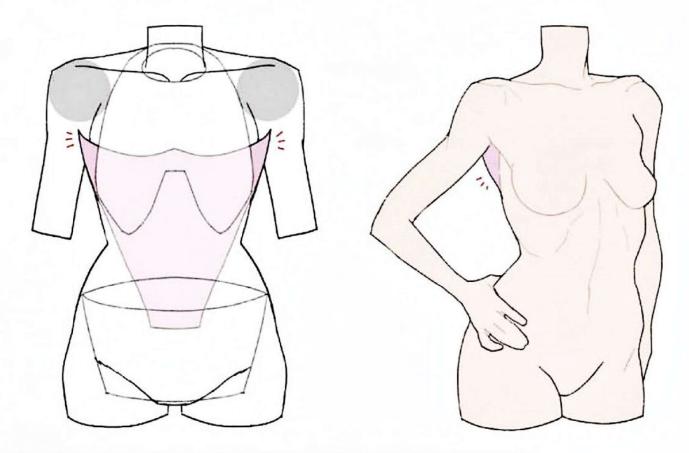
However, if you tilt your back backwards, it will not fold because strength is applied to the spinal muscles.



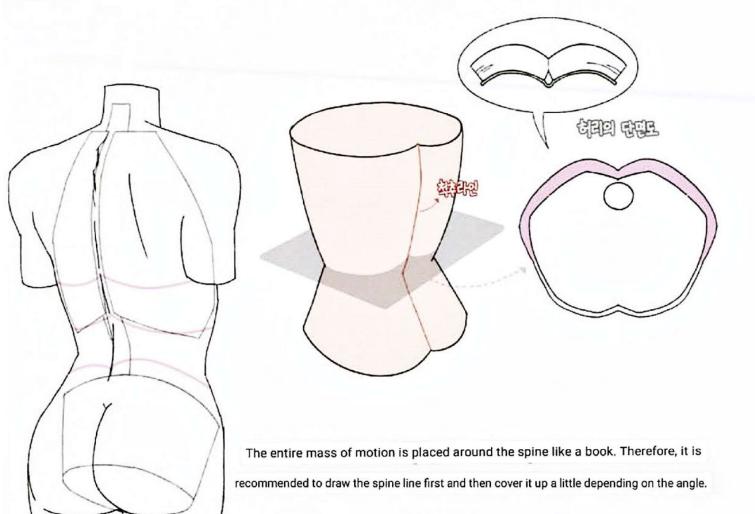
In the center of the trapezius muscle surrounding the shoulder, there is a space where the diamond-shaped cervical vertebra stands out, so the bone shape is more pronounced than other vertebrae.

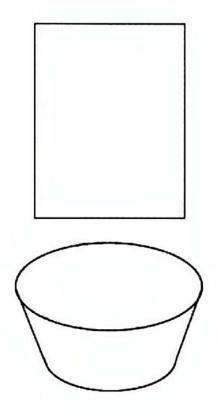


The latissimus dorsi, which covers the entire back and lower back, is a 'triangle'-shaped muscle from the tailbone to the front of the arm. At this time, the lower part of the scapula is slightly biting, and the connection from the lower ampit is also noticeable from the front.

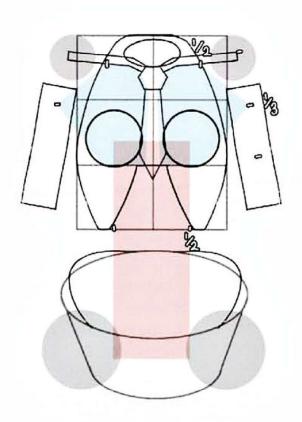


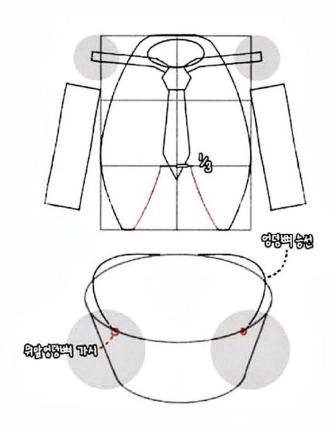
Since the latissimus dorsi covers the back of the rib cage, it is inconspicuous when the arm is lowered from the front, but when the arm is raised, it should slightly wrap the rib cage and create a contour connecting the arm.



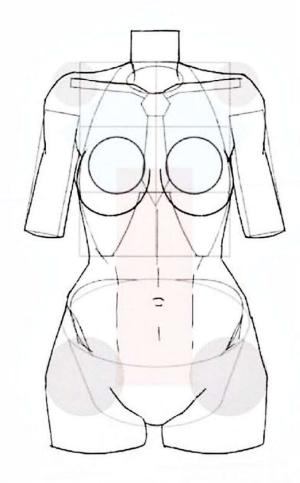


Draw a figure first considering the volume and proportions of the rib cage and pelvis.

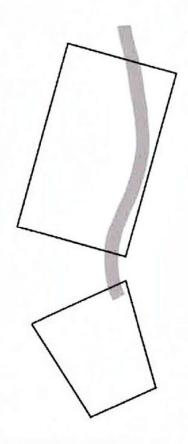




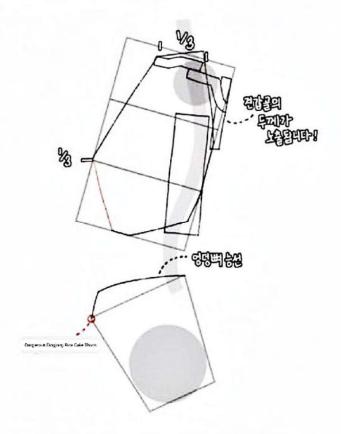
Hold the space for the arms and legs to come out and draw the main landmarks of the rib cage and pelvis.



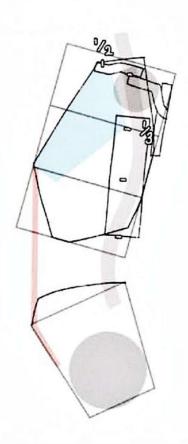
## 2~3 side upper body drawing



 Draw the rib cage and pelvis, considering the flow of the spine from the side.



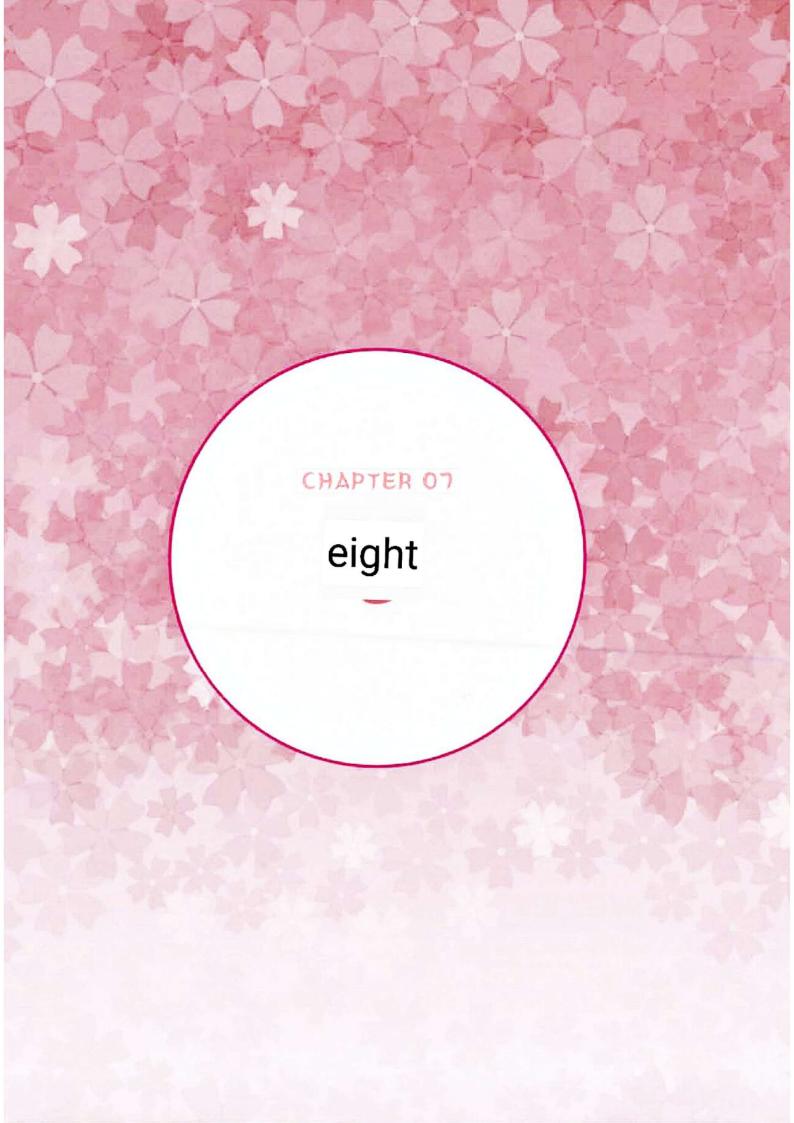
Hold the space for the arms and legs to come out and draw the main landmarks of the rib cage and pelvis. At this time, keep in mind that the thickness of the scapula is slightly exposed.

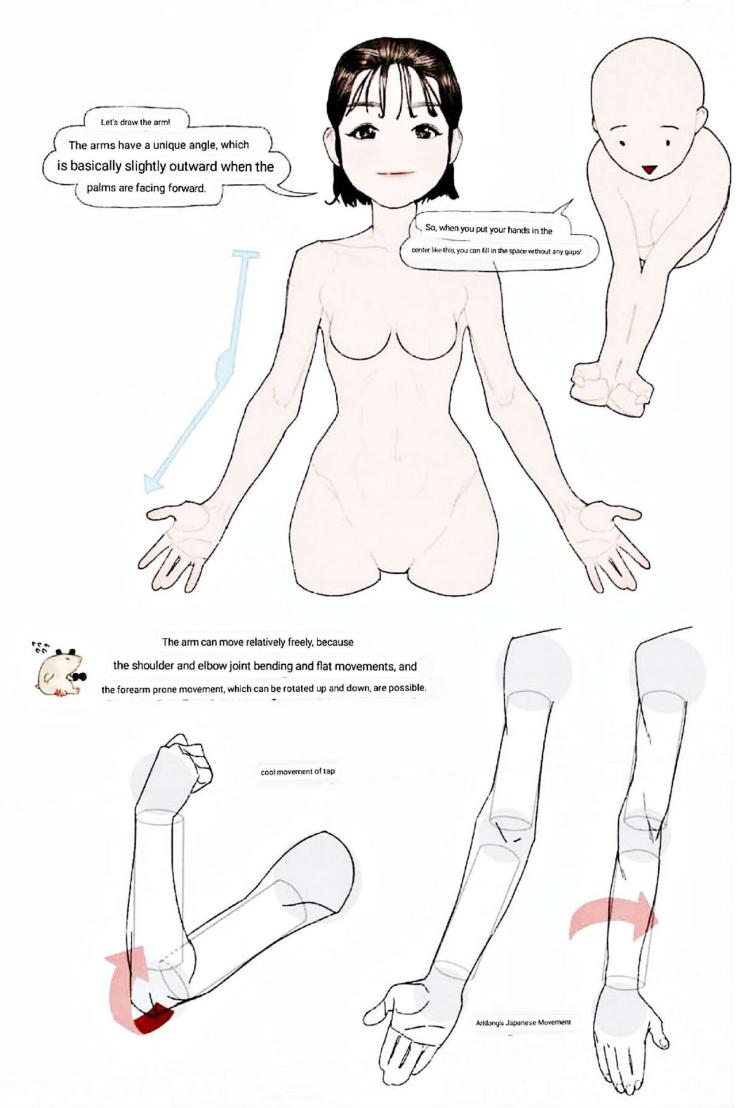


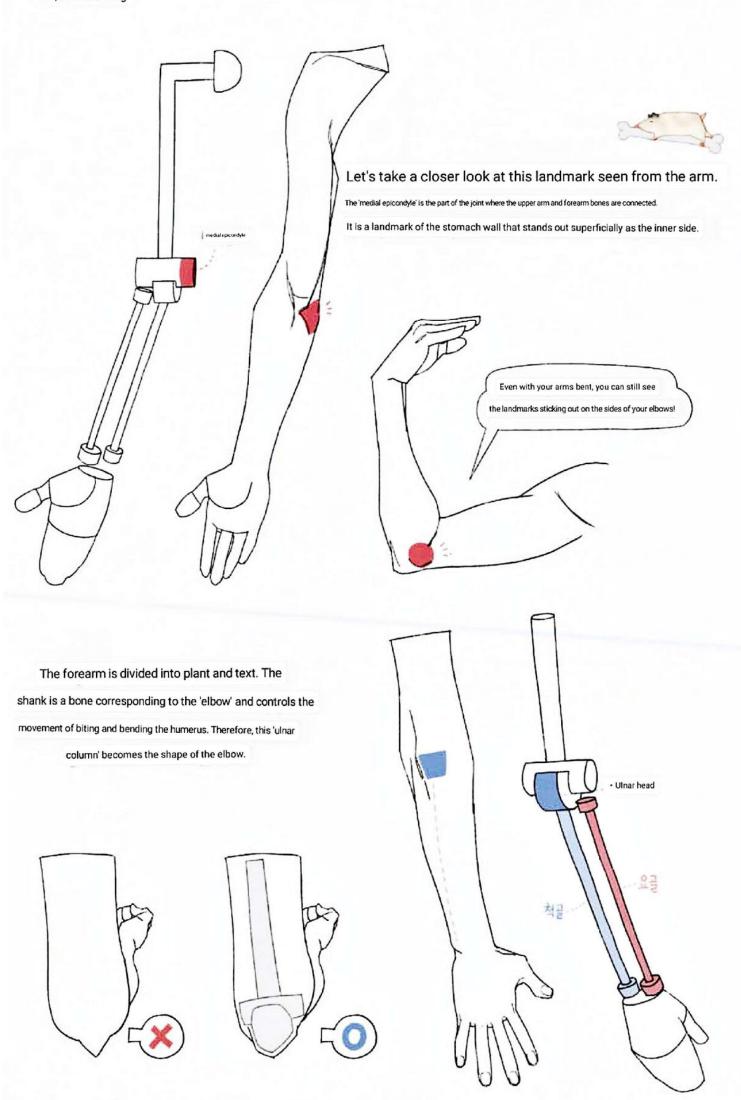


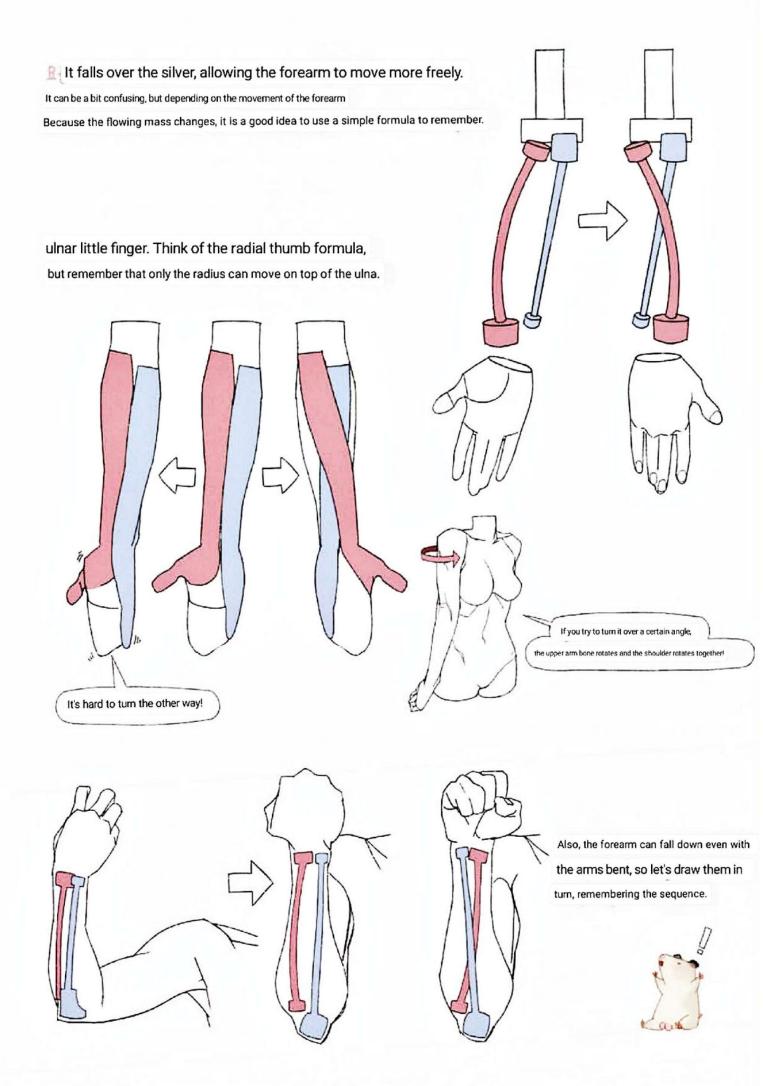
Before the arms and legs are attached, the character can be drawn stably when the 'torso' has the perfect proportions, so let's practice the torso in various poses while checking whether any part is enlarged or elongated.



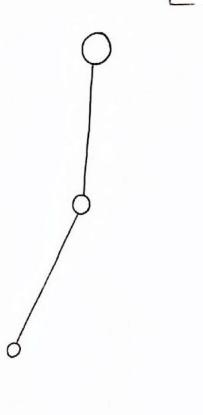


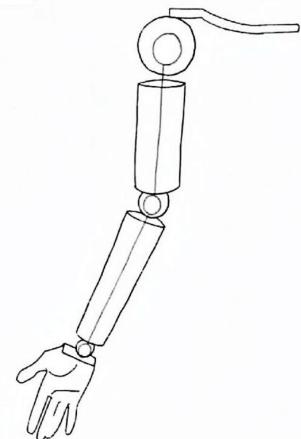




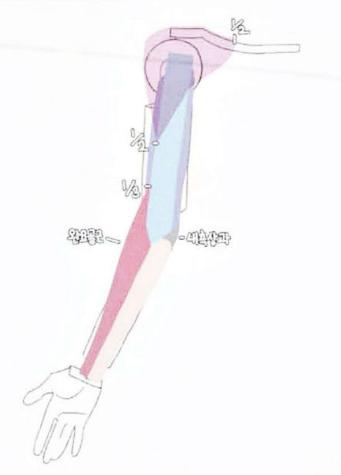


3 Draw the front arm





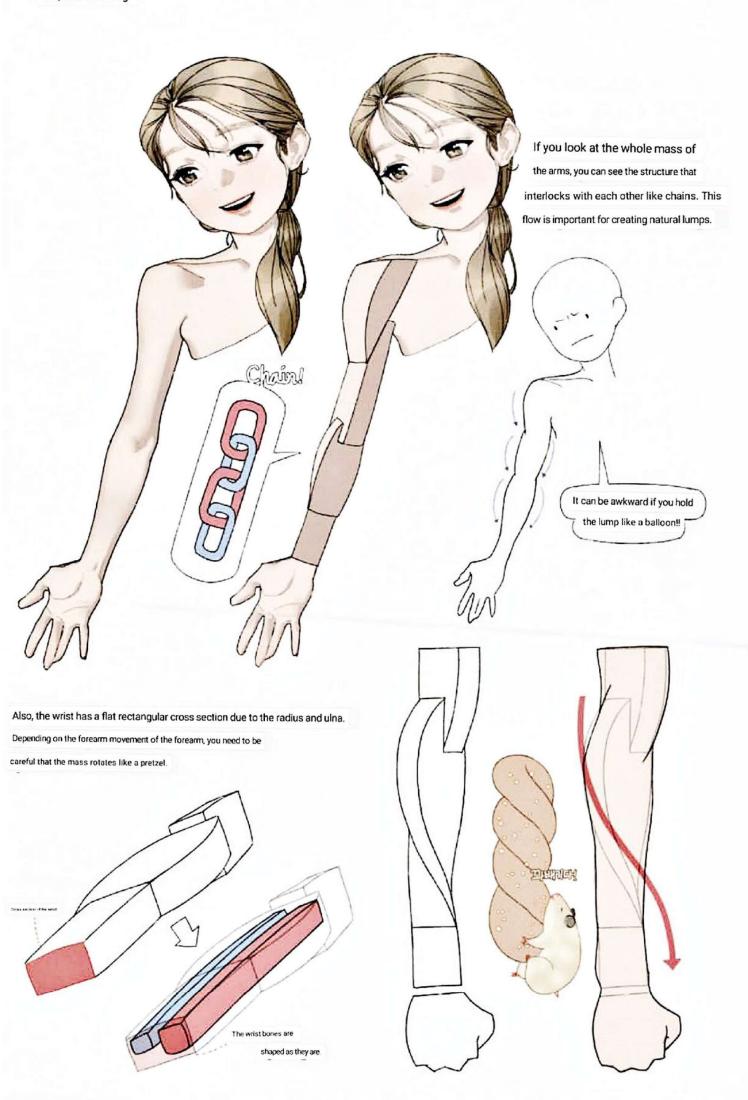
- Create guidelines from shoulder to elbow to wrist. In this case, keep the ratio of 1:1.
- Considering the mass, spherical joints and cylindrical arms. And grab the collarbone.

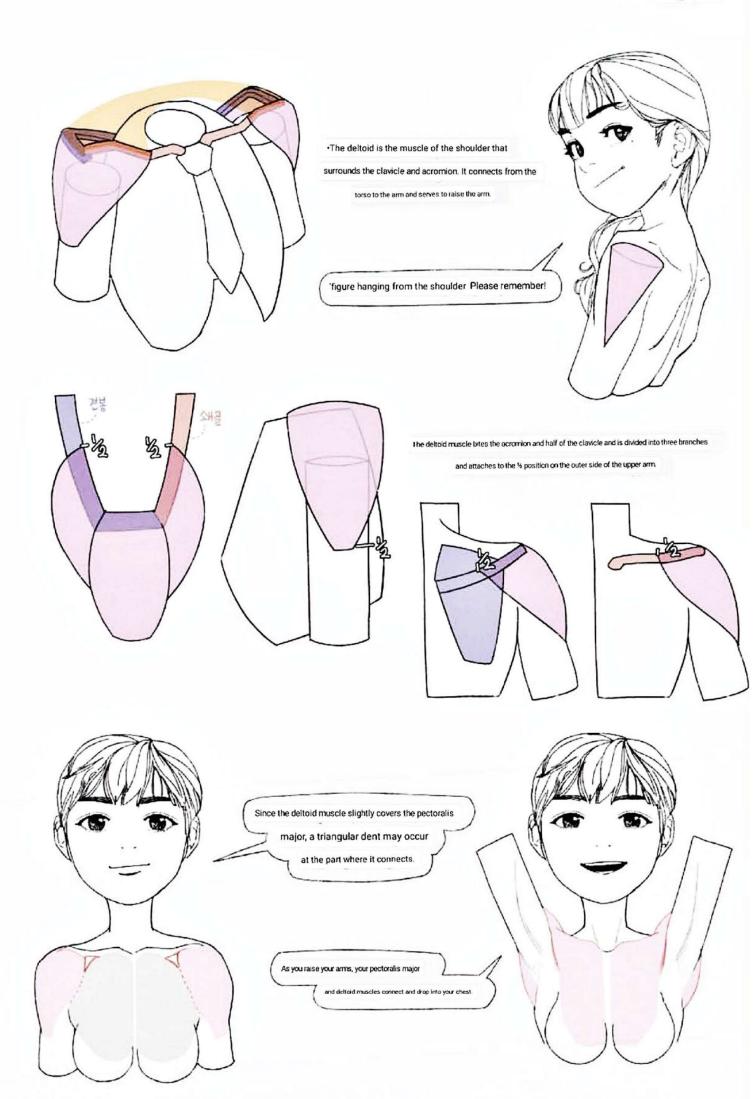


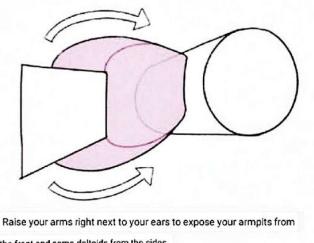


3. Hold the deltoid muscle connected to the clavicle, and smooth the shape of the bone landmark and the brachialis muscle of the forearm.

Think of the curve and connect it.

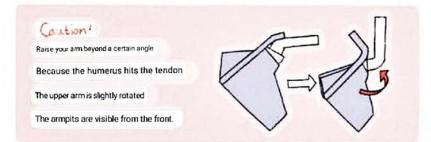


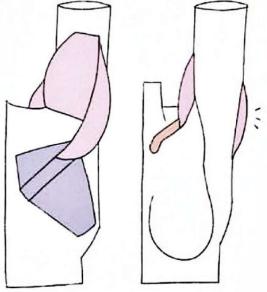




When viewed from above, the trilobed deltoid muscle bites the shoulder area and rises along it.

the front and some deltoids from the sides.

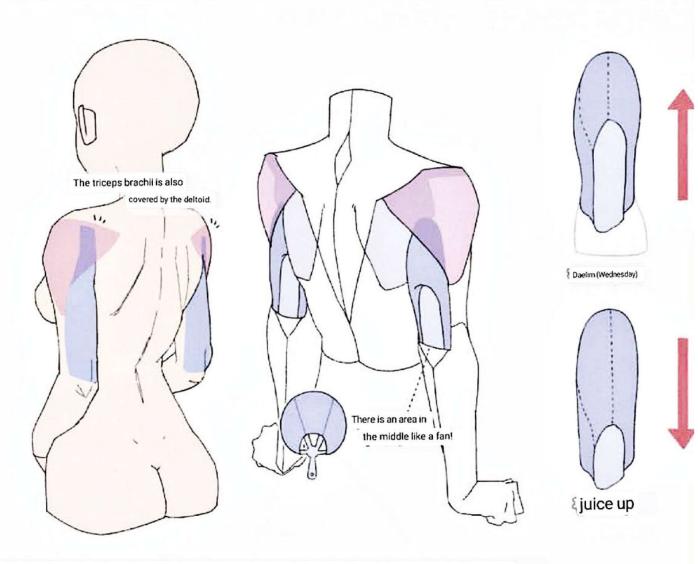




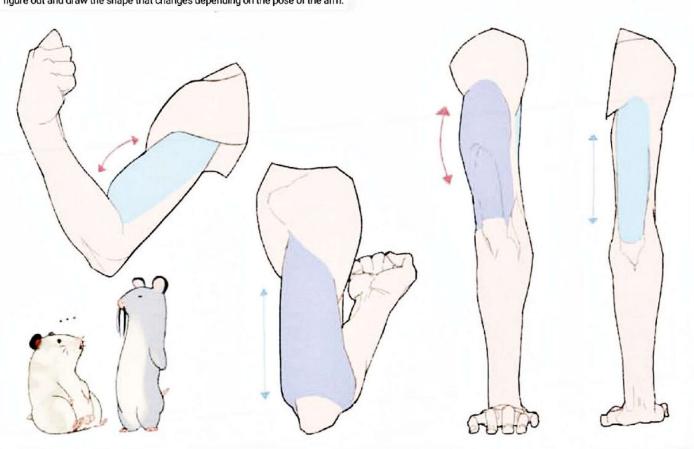
There are three major muscles in the upper arm: the biceps brachii, the brachii, and the triceps brachii. The biceps brachii is a muscle that raises the forearm, and it stands out when the arm is bent.

The deltoid muscle covers the biceps brachil. biceps brachii When viewed from the front, there triceps brachii is a slight dent in the joint where the biceps (F) (F) (F) (F) brachii muscle enters the forearm. The deltoid muscle flows into the brachial muscle between the biceps and triceps brachli.

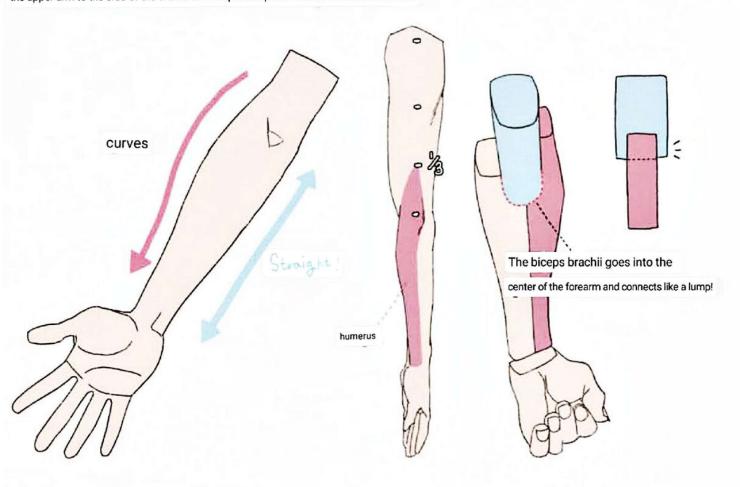
The triceps brachii is a muscle that works when the arm is lowered, and when the arm is extended, the triceps muscle contracts upward to create volume.



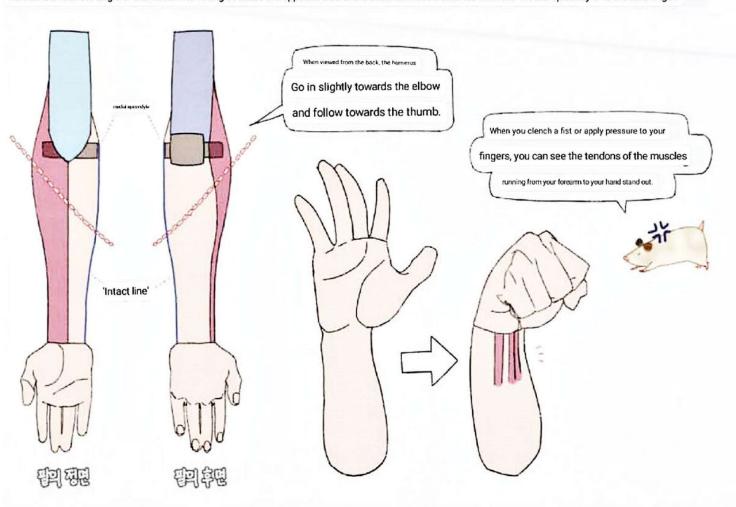
As such, the biceps brachii and triceps brachii contract and relax each other when bending or extending the arm, so let's figure out and draw the shape that changes depending on the pose of the arm.



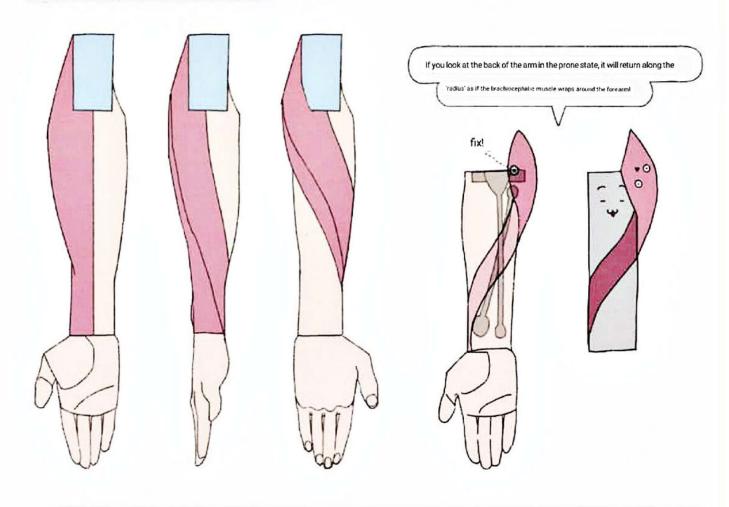
The most prominent muscle of the forearm is the 'brachial femoris' muscle. The curvature of the brachialis muscle from the family side of the upper arm to the side of the thumb is an important point to draw a natural red bean.



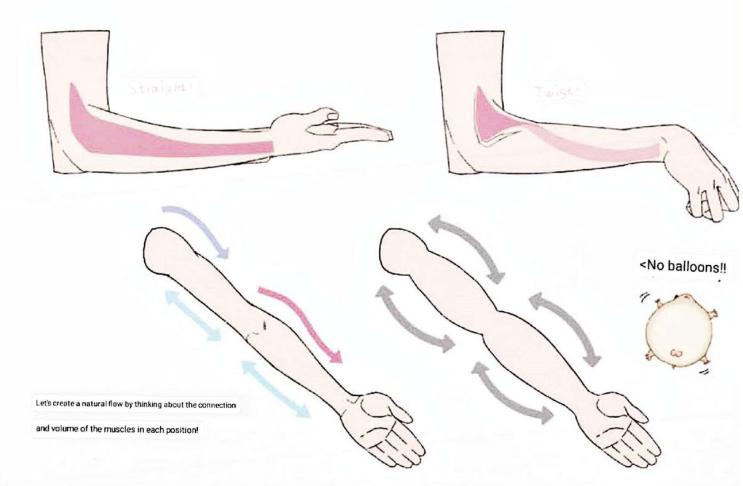
Remember that the angle of the forearm is wrong because the opposite side of the brachial muscle extends from the 'medial epicondyle' to the little finger.



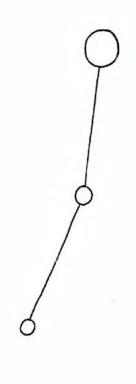
It is recommended to understand the asymmetrical flow that occurs based on the shape of the 'brachial muscle' that is twisted according to the prone movement of the forearm, which has relatively many muscle bundles and is complex.

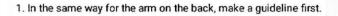


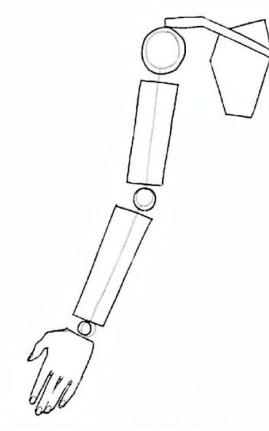
Please remember the flow of the brachiocephalic muscle twisted like a pretzel because it is possible to do an arm prostration exercise even with the arm bent!



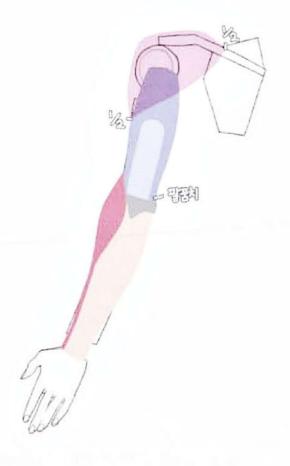
## 23 Drawing the arm on the back







2. Draw the shape of the arm and the shape of the scapula.

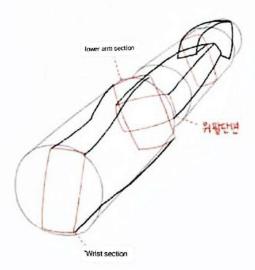


3. Bite the acromion, grasp the area of the deltoid muscle attached to the side of the upper arm, and draw a

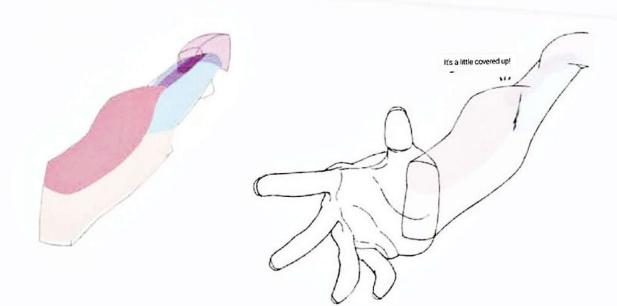
4. Smooth the shape and clean up.

## 3 Draw the arms outstretched





- Considering that the length of the outstretched arm is gradually shortened toward
   the shoulder, it is made into a figure.
- 2. Draw the cross section of each part first, then hold the intersecting mass.

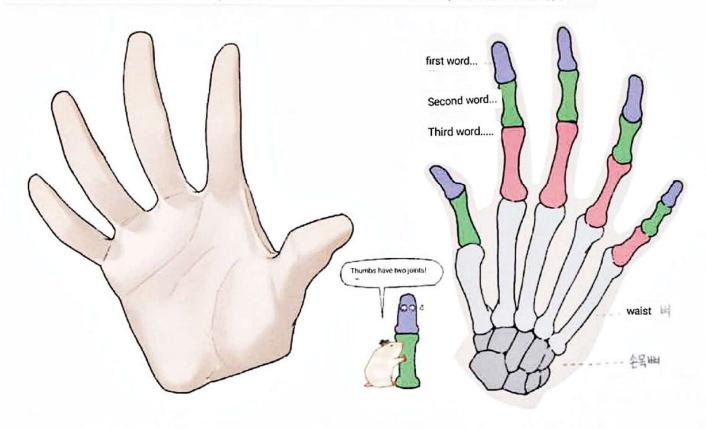




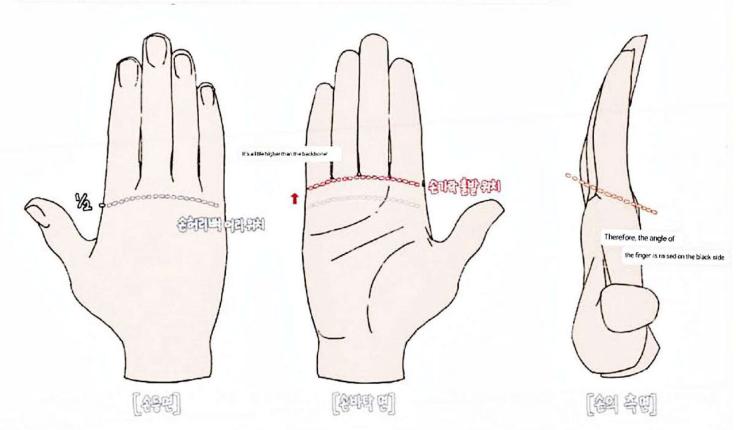


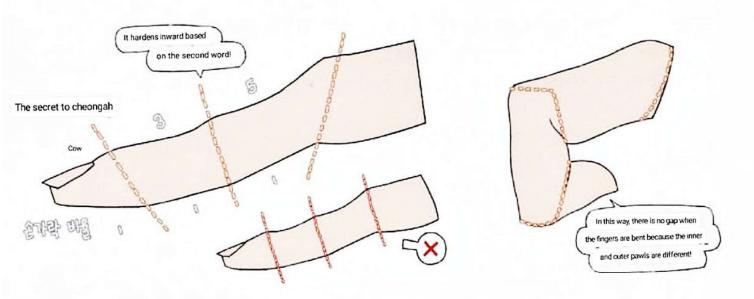
The hand is a very tricky part, as it can be seen as a collection of joints that move in multiple directions. However, the range of expressions is wide, so various productions are possible, and

the elegantly expressed hands can enhance the persuasiveness of the character as much as the face, so let's take a closer look.

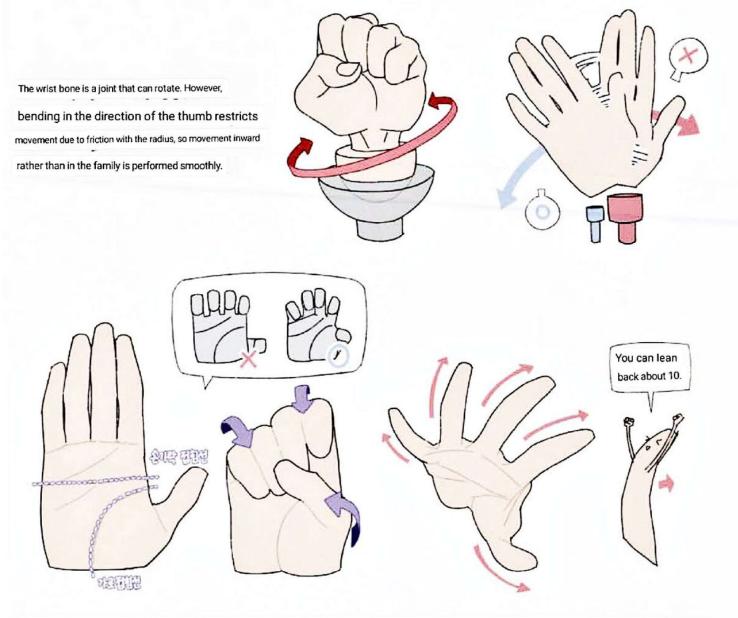


When looking at the proportions of the hand, it is important to note the difference between the back of the hand and the palm of the hand. The head of the lumbar bone protruding from the back of the hand is the starting point of the 'finger bone'. If you turn it to the palm side, you can see that the fingers are protruding a little higher due to the 'web'.



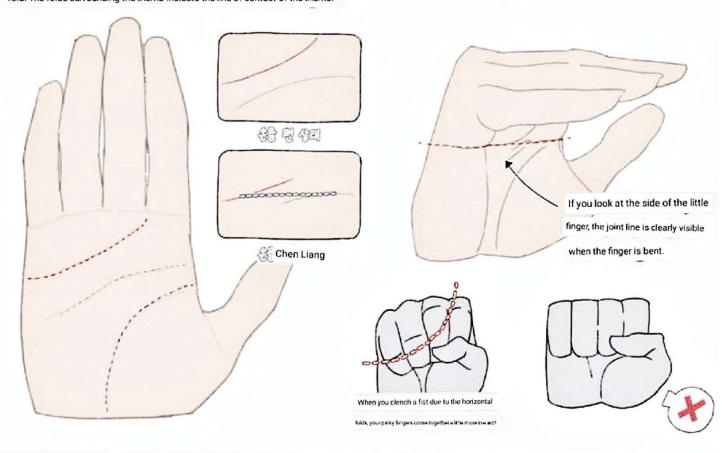


Due to the nature of the fingers that curve inward, the ratio of the fingers visible on the parietal plane is 2:5:5, which gets shorter towards the first joint, whereas the ratio of the fingers on the palm side is 1:1:1, making it possible to bend the fingers seamlessly, can be.

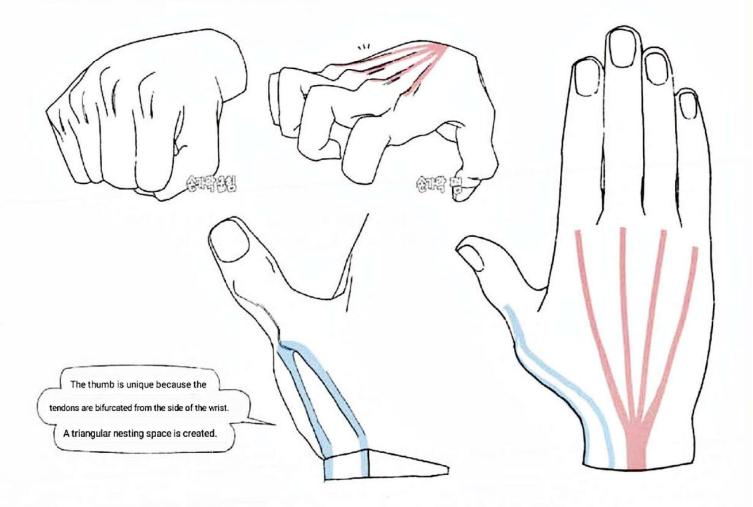


Kimji~Little finger is bent toward the wrist, while the thumb is bent inward in an oblique direction to hold the other fingers.

The 'palmprint' of the palm can be used as an index of this folding. The two horizontal folds at the top of the palm are the line where the index finger to the little finger fold. The folds surrounding the thumb indicate the line of contact of the thumb.

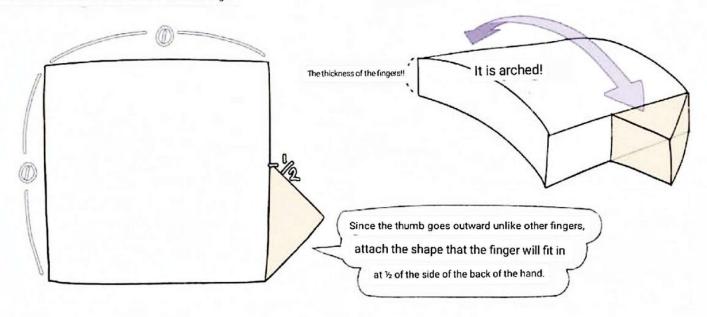


If you look at the back of your hand, you can see 'power', often mistaken for 'bone', and this tendon flows from the center of the wrist to each finger as if it spreads in a fan shape. Also, these tendons stand out when you extend your fingers, so be careful with their expression.

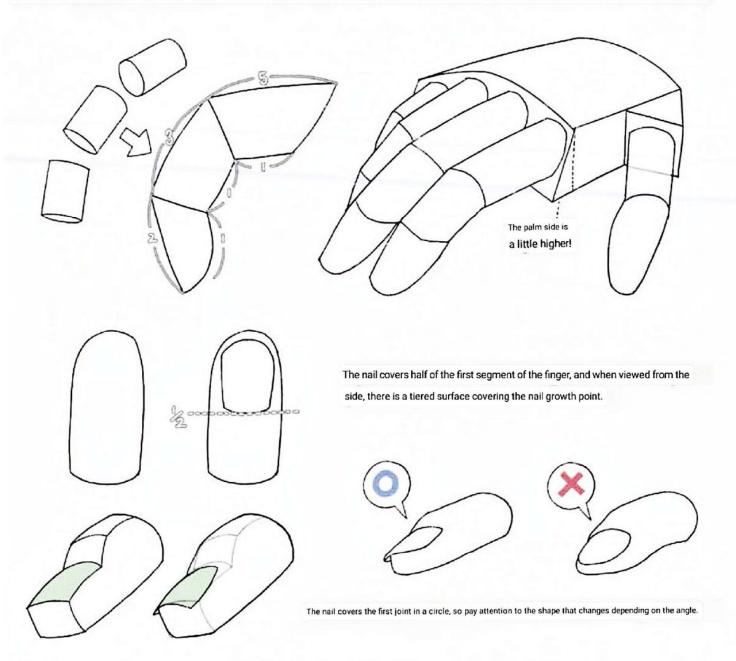


Let's study by replacing the hand with a figure. Hold the back of the hand where the finger comes out first, and then attach the finger.

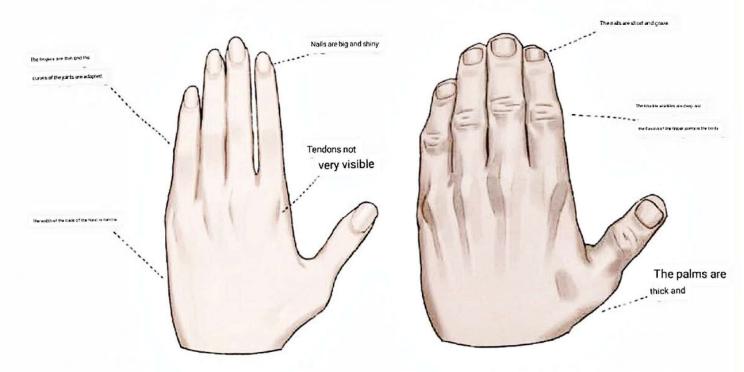
The back of the hand is arched relative to the middle finger.



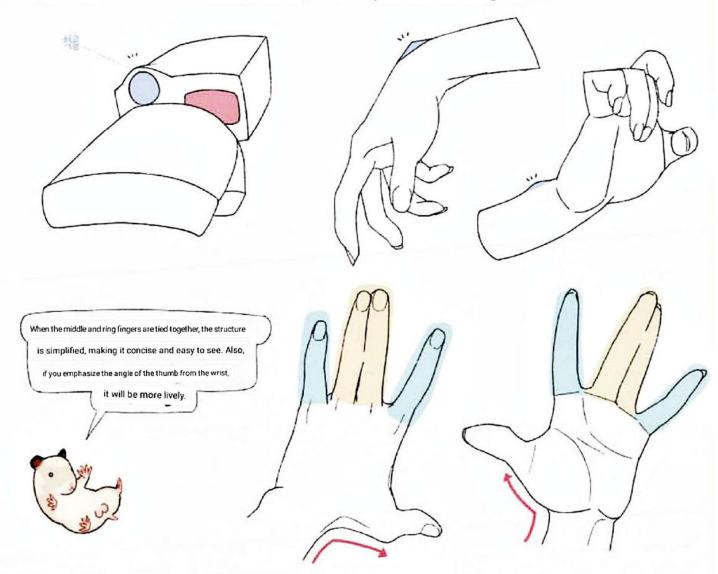
The fingers are drawn by replacing them with a cylinder. At this time, remember that the proportions of the inside and outside of the finger are different so that it bends naturally.



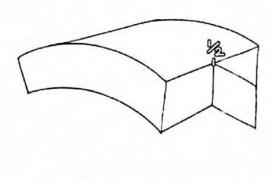
There is a saying 'seomseom corn'. It is an acronym for a slender and fine hand. Those pretty hands can be a great way to double the charm of a character, but if so, exactly which hands can give you a pretty, soft feel? Compare it to a rough and rough hand and see the difference.

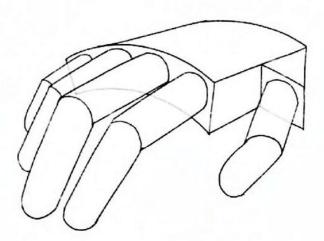


In addition to the beauty of the shape, you can make your hands more attractive by using a few edges. First, if we look at the connection with the wrist, •The ulna part rises a little higher.

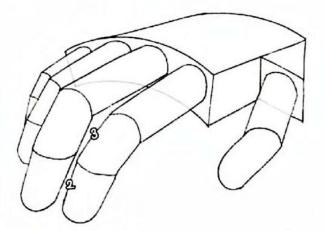


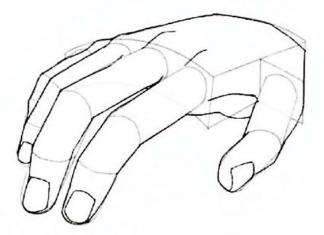




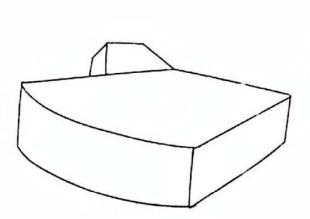


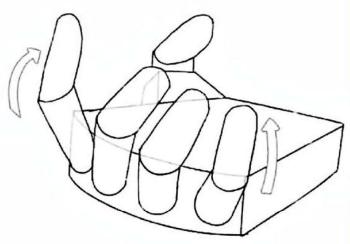
1. First, draw the back of the hand of the arcuate cuboid. At this time, the thumb draws a 2. cylindrical finger, taking care not to go outward from the second joint. First, grab the two naturally bent joints at a ratio of 1:1.





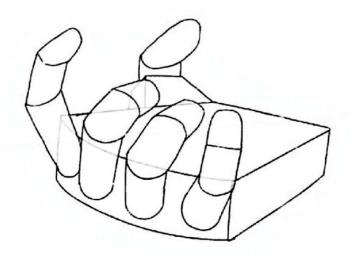
Divide the last bar in the ratio of 3:2 and draw the last bar. At this time, the bending angle is expressed a little more gently. 4. Put the webbing between the fingers, the metatarsal bones, and the nails and arrange them.

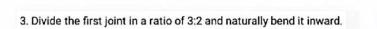


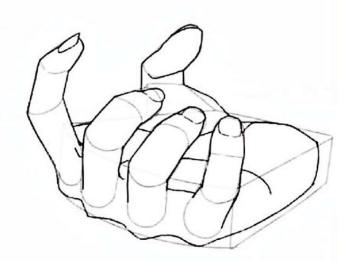


1. In the same way for the palm side, first draw the figure of a cuboid.

Let's draw the finger posts of 2.1:1, keeping in mind that the fingers are bent inward.

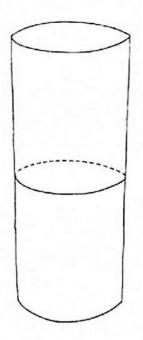


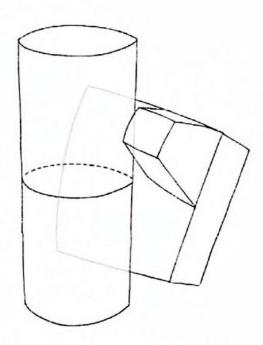




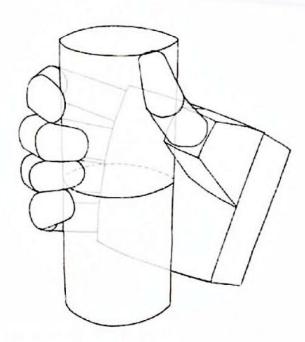
4. Draw and arrange the nail and metatarsal bones that get smaller depending on the angle.

23 Drawing a hand holding an object





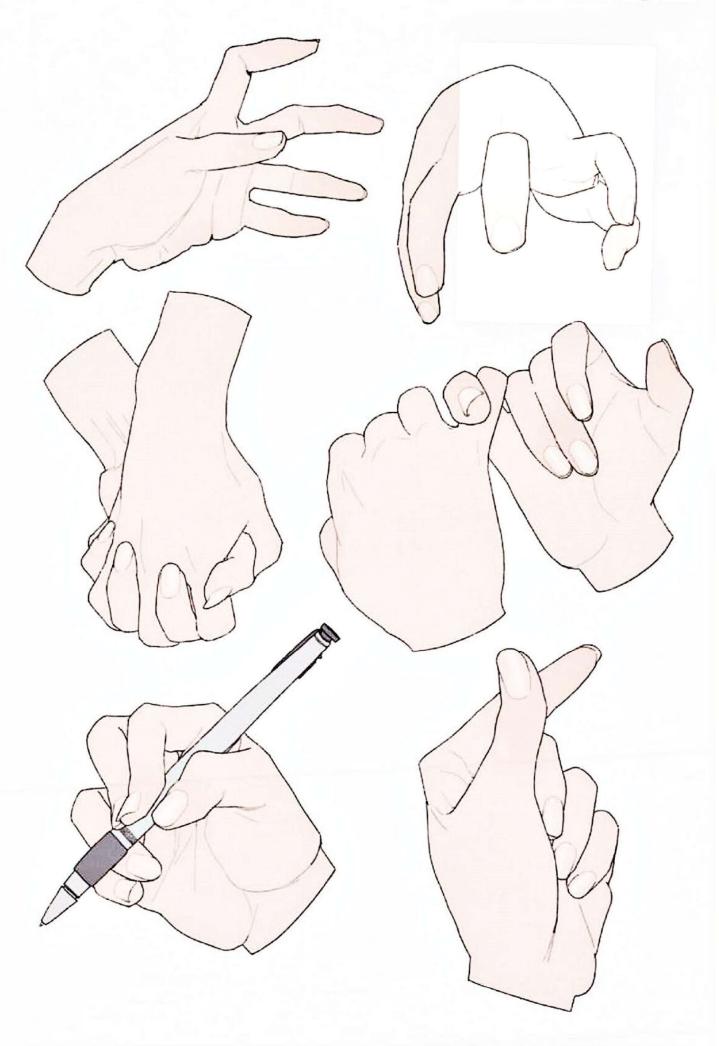
 The shape of the gapping hand changes according to the shape of the object, so grasp the lateral strength of the object first. If the object is a cylinder as shown in the figure, hold the shape of the palm as if the object fits tightly into the space between the thumb and index finger.



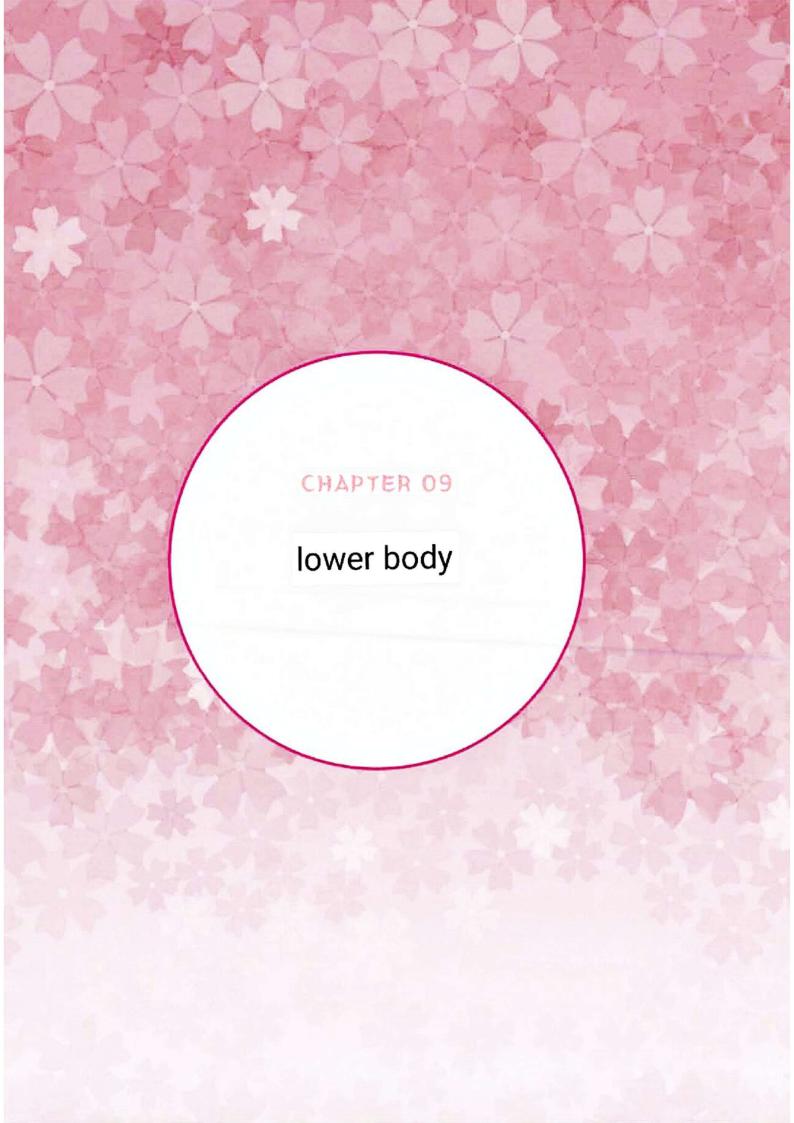
3. Draw a finger shape taking into account the inward curve of the finger.



4. Pay attention to the shape of the rotating nails and arrange them.

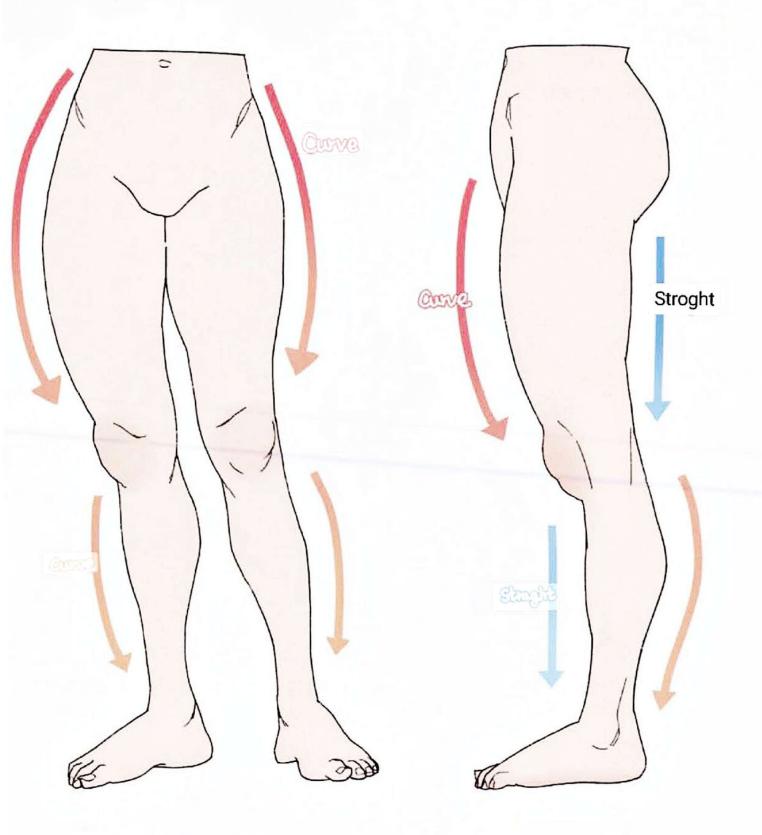


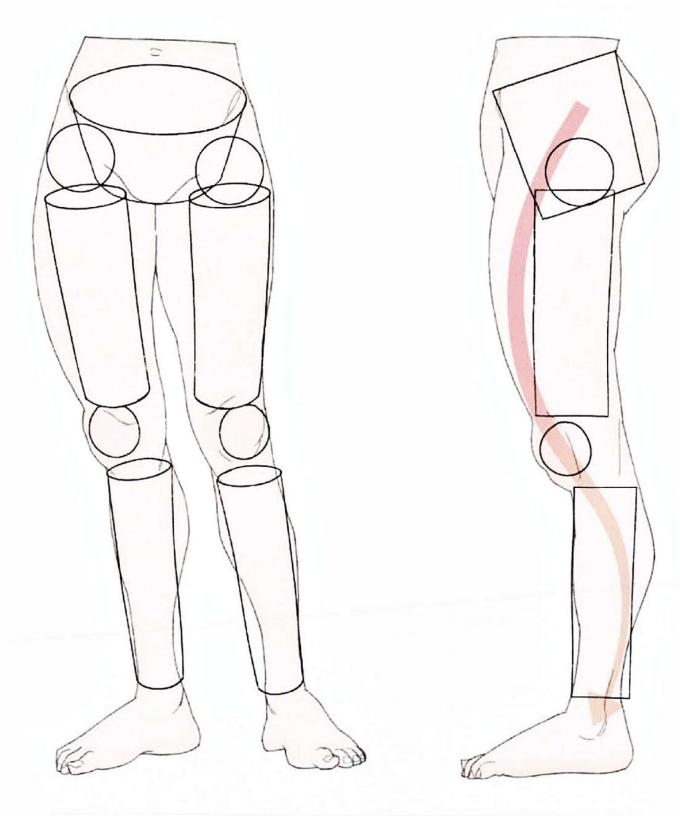
There are countless poses the hand can take. However, since we have our hands that we can refer to over and over at the same time, even if your neck hurts a little, we recommend that you turn your hands around and observe them often. Well-groomed hands are very attractive!



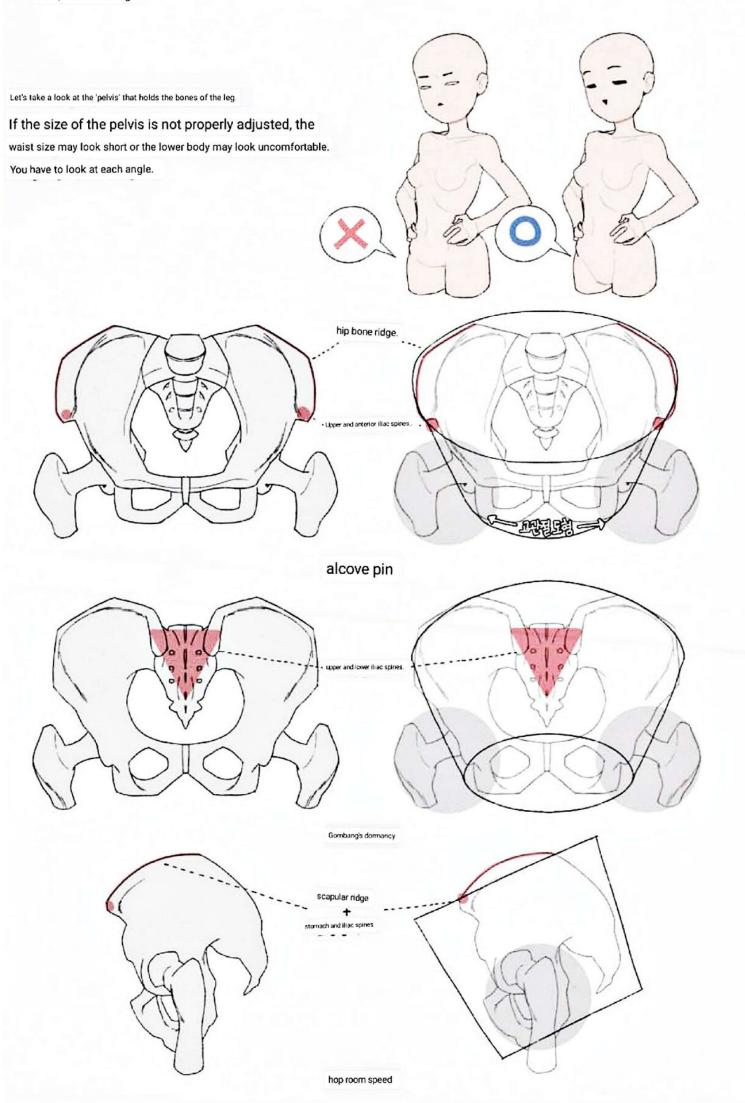


The legs are, above all, important to understand the proportions and flow of the pelvis, thighs and calves. Therefore, rather than memorizing detailed muscles, let's draw a stable and beautiful leg by attaching a mass based on the figure drawing.





The legs are more clearly visible when viewed from the side. Because it has to bear the weight of the whole body. The calves are slightly set back from the thighs, creating an S-curve.

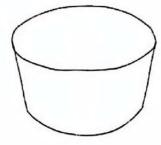


It is recommended to understand the pelvis as a shape that is close to a 'basin' leaning forward by about 15'. Rather than memorizing a complex shape,

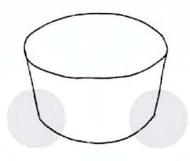
use this landmark such as the hip bone ridge and upper front (back) hip bone on the pelvis that has been replaced with a basin shape. Let's develop the form.



drawing a dot

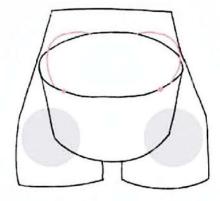


 Draw a 'basin' shape that is sized to fit one head.



On the side, hold the hip joint that protrudes

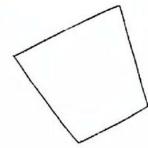
beyond the pelvis in a compositional shape.



Position the upper anterior iliac spine and connect the shape.



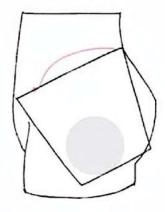
## AN 40 1911



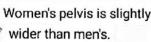
Draw a pelvic figure that is slightly narrow
 and inclined about 15'.

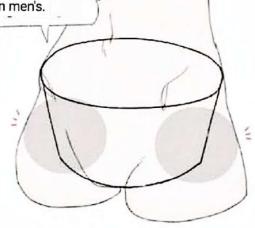


2. Position the sphere, the hip joint figure.



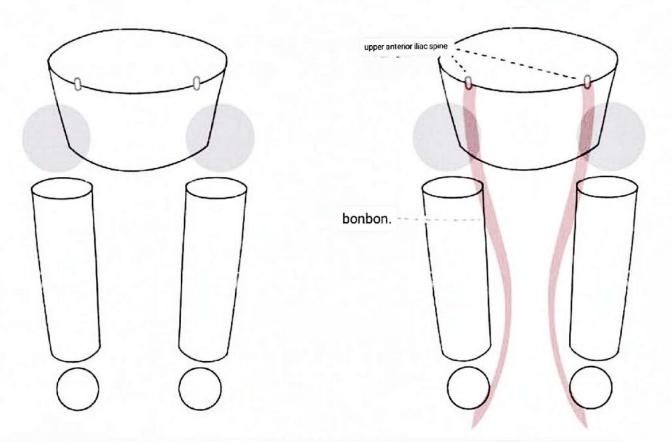
Position the iliac crest and the upper iliac spine and connect the shape.



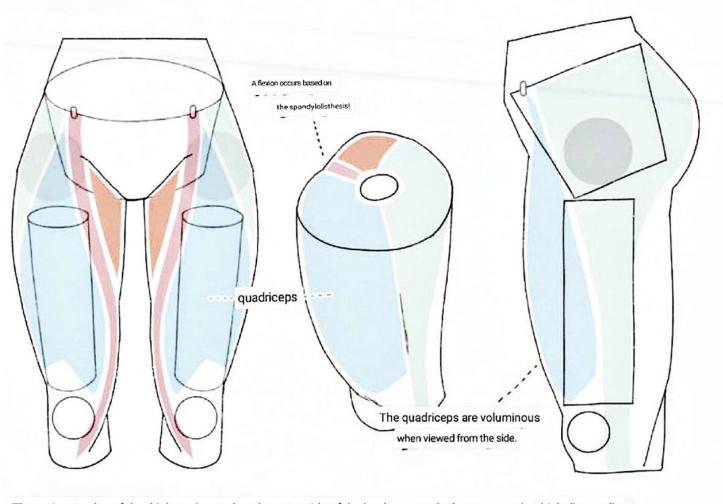




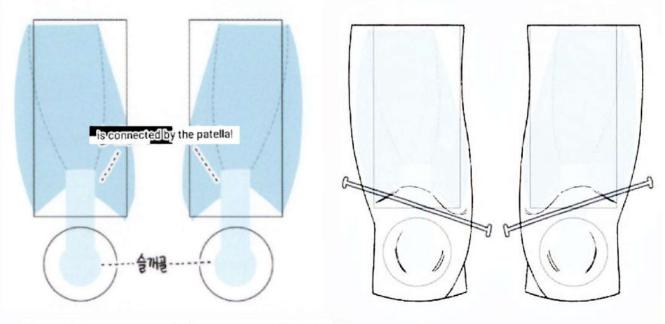
Also, because the hip joint protrudes outward, a relatively curved shape can be created.



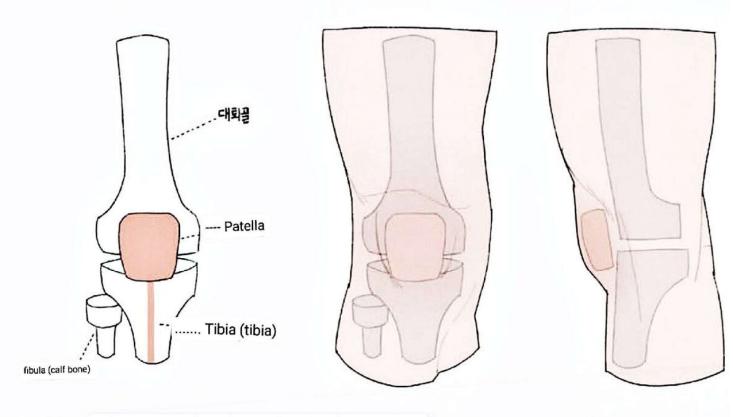
Let's put on the thigh mass. First, the basin-shaped pelvis. spherical hip joint. And after drawing the cylindrical shape of the thigh, draw a line of the 'bongong muscle' that flows from the upper anterior iliac spine to the tibia (tibia) below the knee. This levator muscle serves as a guideline for dividing the main mass of the thigh, so grab it first.



The main muscles of the thigh are located on the outer side of the bonbon muscle that crosses the thigh diagonally, and the inner side has a relatively slight flexion.

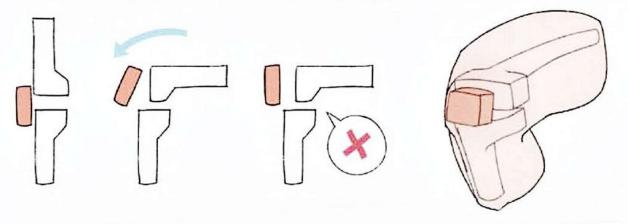


The quadriceps connect to the knee, creating a distinctive angle. Please remember this angle as it plays an important role in shaping the knee.

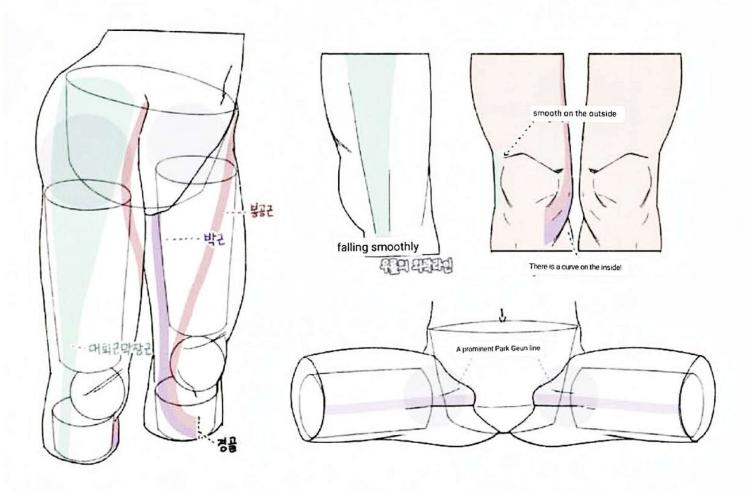


The knee is centered on a bone called the patella, and the quadriceps muscles cover

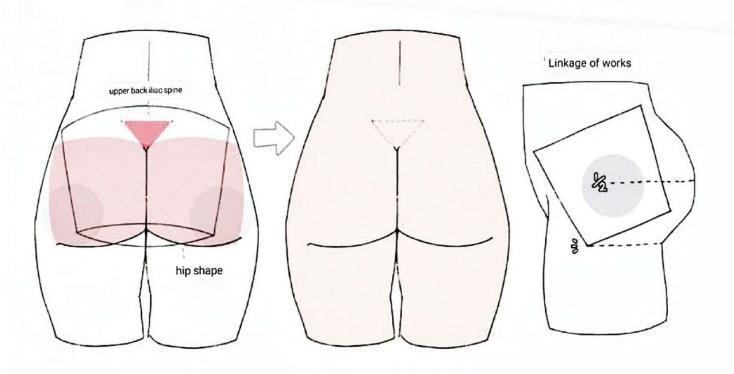
it upwards. Below, the line where the tibia falls is revealed, creating an overall shape.



Since the patella is a separate bone from the bones of the leg, think of it as sliding down when the knee is bent.

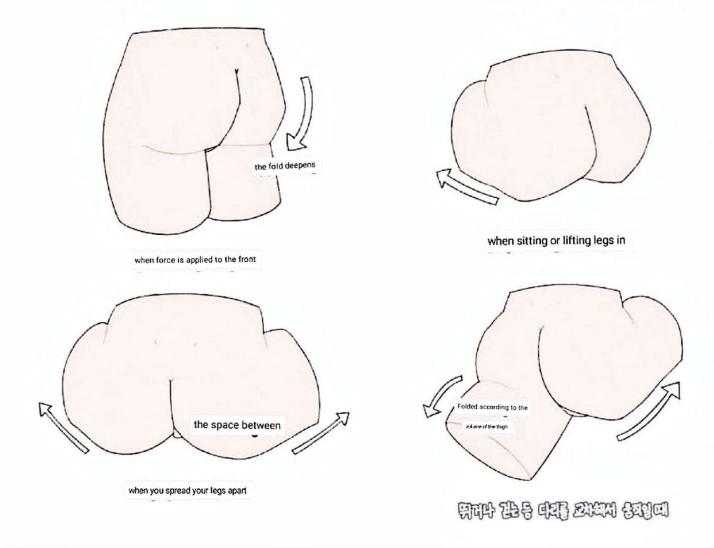


On the inside of the thigh, there is a long muscle called 'Pakgeun', which stands out when you pose for a leg-building pose. Also, because the serratus and serratus muscles connect to the tibia below the knee, they contrast with the smooth falling outline.



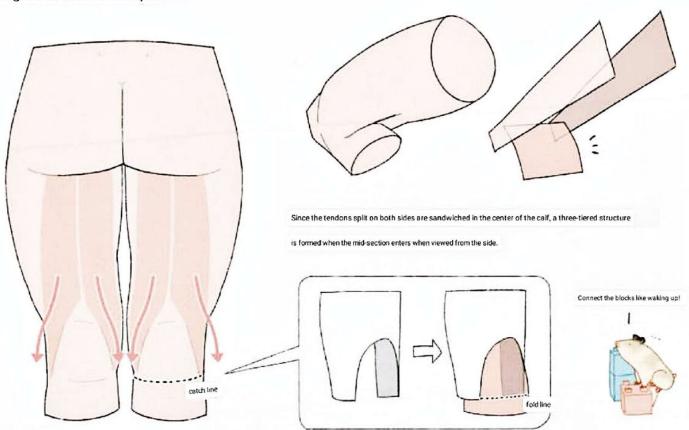
The hip reminds us of the shape of a round square shape on top of the pelvis. The upper and lower iliac bones split below the triangular landmark From the side, hold the guideline and be careful not to show your hips too high or too low.

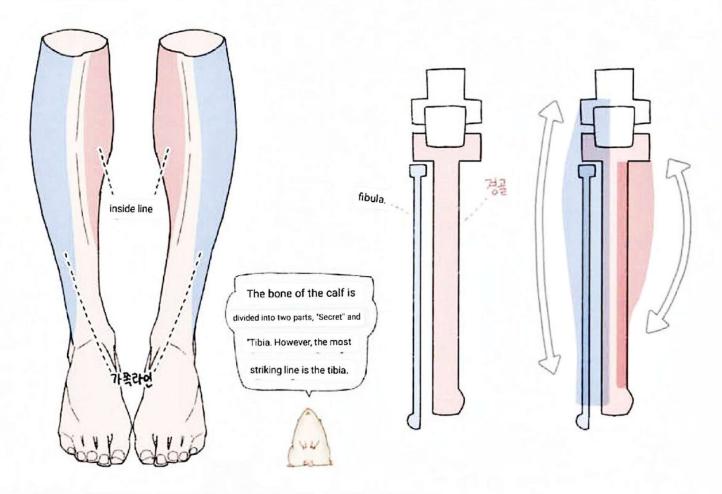
The shape of the buttocks changes when you move your legs, so let's take a look at the shape that changes when you take various poses.



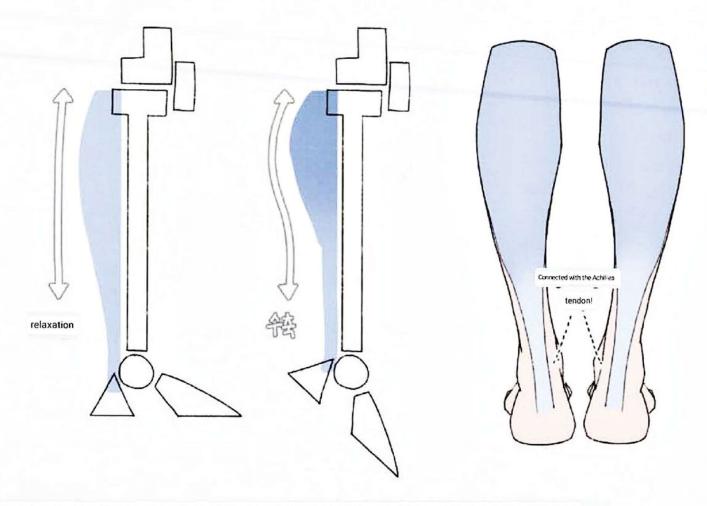
If you look at the back of the thigh, there is a fold that splits in the part where the knee is bent.

•It is good to think of a shape.



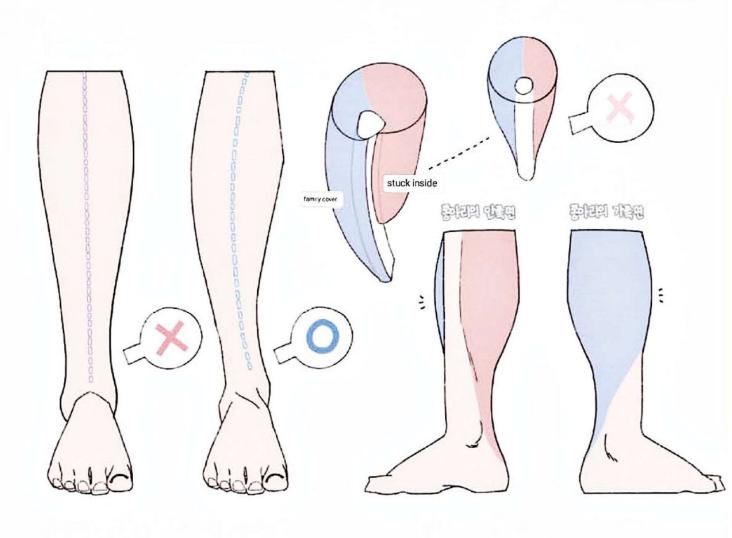


The calf also has a contrasting familial line with the inside, the inside going sharply towards the ankle while the side dropping gently.

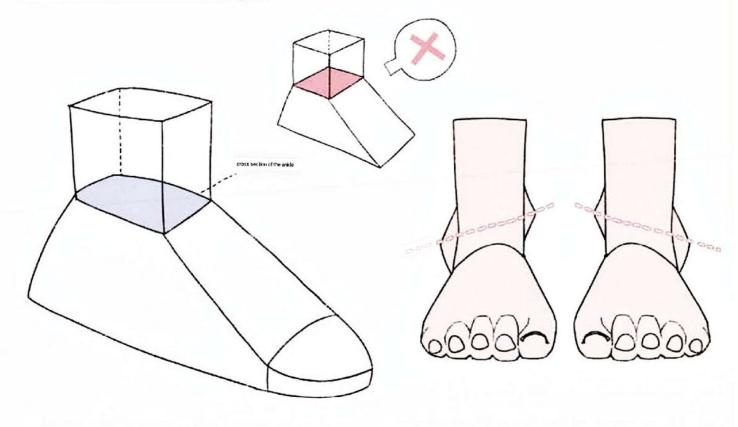


The main muscle of the calf is connected to the heel, and the 'Achilles tendon' commonly referred to as the 'Achilles tendon' is the connection of this tendon.

Also, pay attention to the silhouette that changes according to the movement of the foot as it contracts and rises when the heel is lifted.



The bony (tibia) edge of the calf has a sulfur-curved stream as viewed from the front. Also, based on this 'gift', the family's muscles cover the stomach and the inside is receding, making a difference in the appearance.

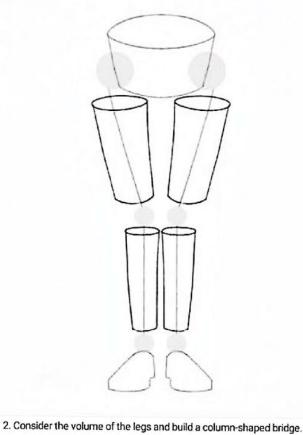


The ankle reminds me of a rectangular parallelepiped shape with a slightly longer side, and the malleolus located on both sides has the inner malleolus a little higher than the family malleolus.

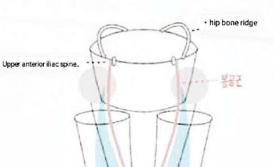
Because of the location, there is a difference in angle.

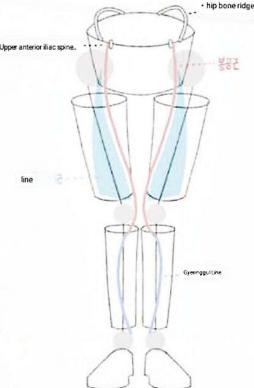
## 23 Drawing the front legs

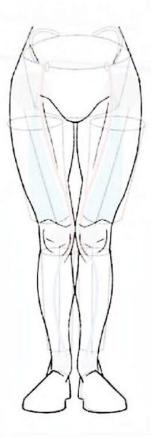




1. Hold the skeleton considering the angle of the 'Y' shape formed when the femur gathers inside the knee.



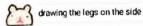




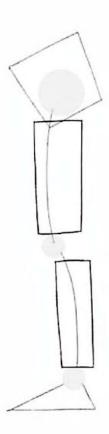
 $3. \, Hold \, the \, position \, of \, the \, hip \, bone \, ndge \, and \, thoms \, and \, catch \, the \, flow \, of \, the \, bongong \, muscle', \, which is \, the \, catch \, the \, flow \, of \, the \, bongong \, muscle', \, which is the \, catch \, the \, flow \, of \, the \, bongong \, muscle', \, which is the \, catch \, the \, flow \, of \, the \, bongong \, muscle', \, which is the \, catch \, the \, flow \, of \, the \, bongong \, muscle', \, which is the \, catch \, the \, flow \, of \, the \, bongong \, muscle', \, which is the \, catch \, the \, flow \, of \, the \, bongong \, muscle', \, which is the \, catch \, the \, flow \, of \, the \, bongong \, muscle', \, which is the \, catch \, the \, flow \, of \, the \, bongong \, muscle', \, which is the \, catch \, the \, catch$ 

4. Consider the overall flow of the leg and trim the shape.

center line of the thigh: the 'tibia', which is the center of the calf.

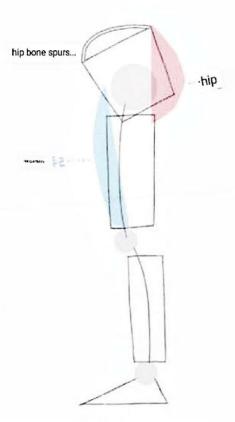


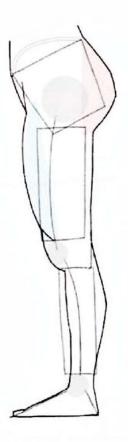




Hold the pelvis slightly tilted forward and the skeletal line that engages in an S-shape.

2. In the same way, set the figure so that it is slightly distorted.





3. Hold the iliac crest and increase the volume of the quadriceps on the front of the thigh.

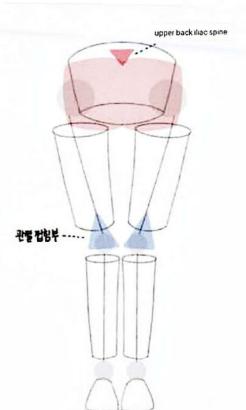
4. Trim the shape to keep the overall flow in an S shape.



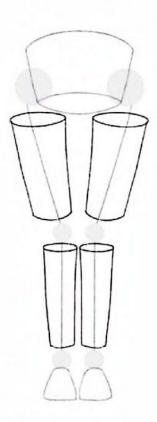
drawing the legs on the back



Hold the skeleton at the same angle as the front. Note
 that the angle of the pelvis is different.



Grasp the area of the hip with the upper and lower iliac spines. Grasp the folds of the joints.

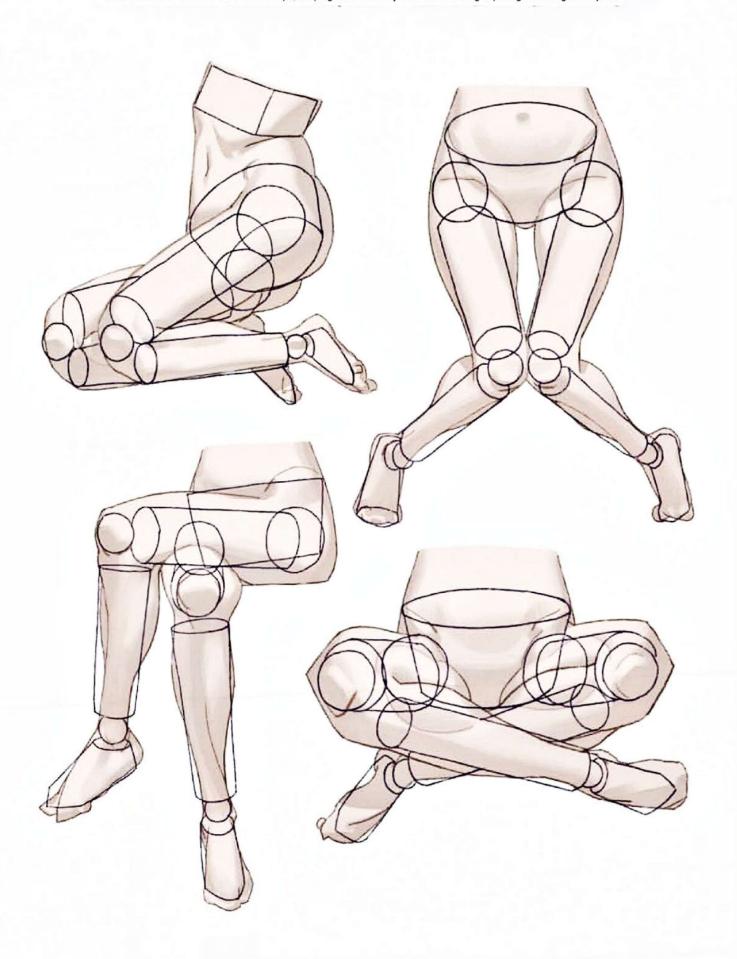


2. Build a column-shaped bridge.

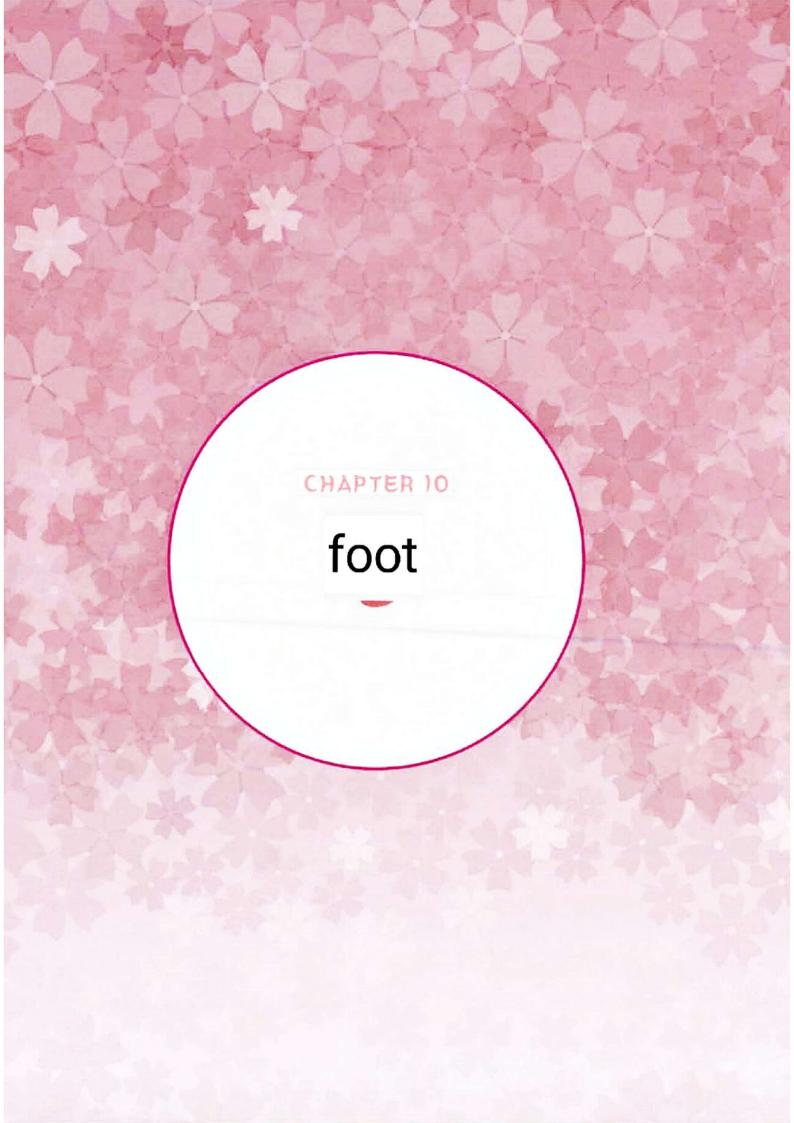


4. Pay attention to the flow and refine the shape.

Let's practice drawing various leg poses. Referring to various materials, shape the pose you want to draw and then apply the shape. •It is recommended to focus on the natural shape, keeping in mind fluidity such as stretching or pulling according to the pose.



In particular, it is important to draw attention to the overall flow and proportions because the muscles of the legs have relatively few cracks or bumps unless there are special cases.

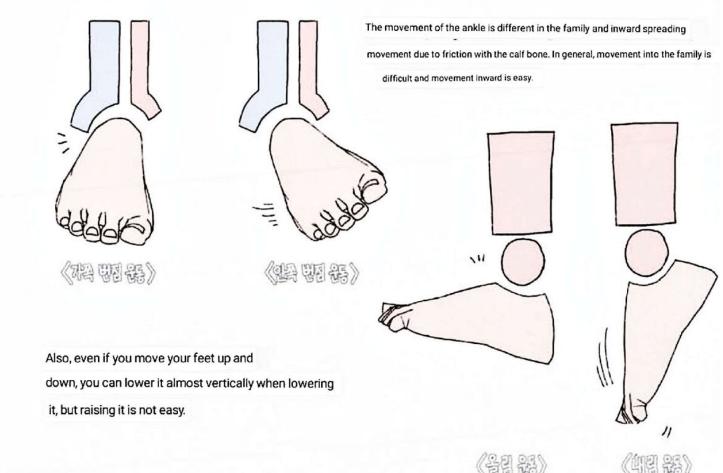


The two feet serve as a strong support for the character to stand on, so they serve as a period when drawing a full-body figure.

However, it is often difficult to draw because there are relatively few occasions to draw and there are few opportunities to observe.

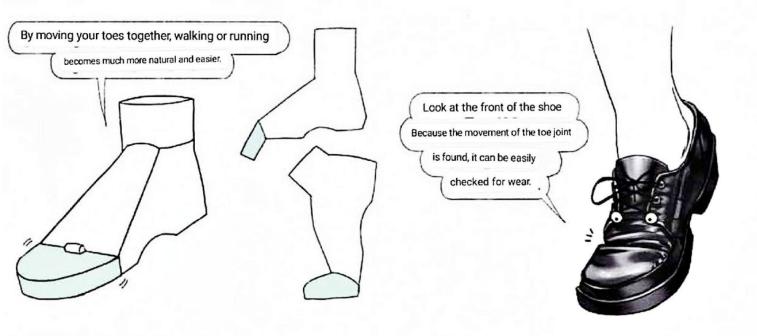


Before drawing the shape, let's take a look at the range of motion the foot can move. The feet have a similar structure to the hands, but their roles are very different, so the movements are also different.

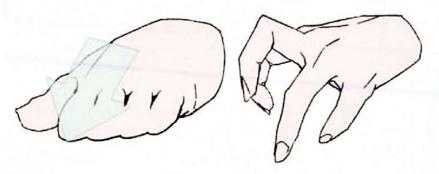


Another difference from the hand is that, unlike the fingers, the toes are difficult to move individually.

Therefore, when drawing, it is better to understand it as a joint rather than drawing each toe one by one.

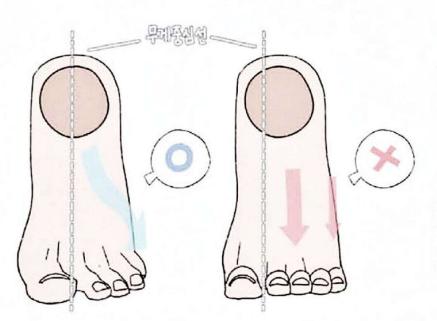


When it comes to toes, the role of the big toe stands out. The big toe is the strongest and thickest of the toes, which means it can bear a lot of weight and maintain balance with the other toes.



Unlike hands, where each joint moves freely

The joints of the toes are faithful to the role of touching the floor.

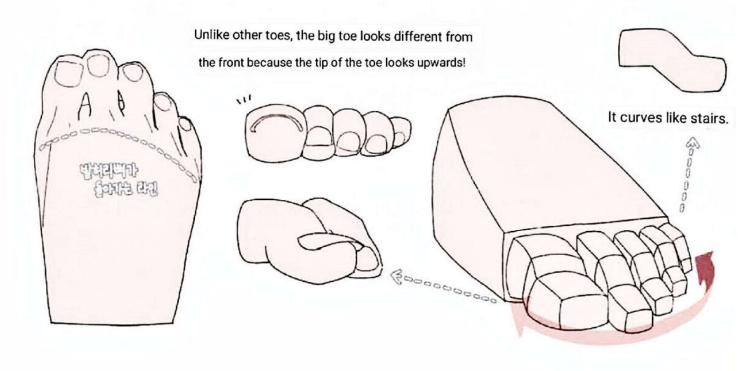




If you look at the sole of the foot, the big toe and the You can see where the rest of the toes touch.

Since the center of gravity passes between the big toe and the rest of the toes, when you lift your heel, it follows the arc drawn by the instep and rolls inward toward the little toe.

Of the toes, the second toe is the longest, and the other toes converge towards the second toe, so the toe is always in an arc. Also, be aware that the joints of the toes are short, so they are usually on the floor like stairs.



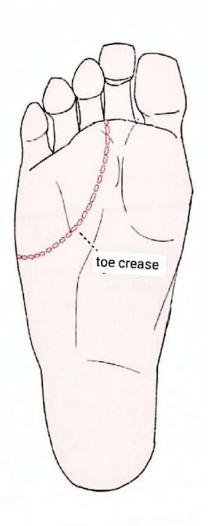
If you look at the soles of your feet, like the palms of your hands, there are wrinkles that can predict the direction of movement of your toes. Similar to fingers, you can see that they come together when bending around the second toe.

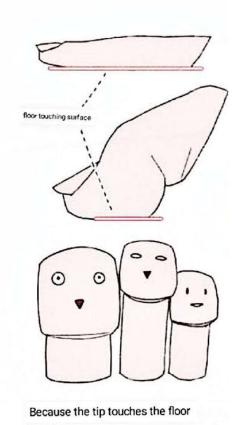
Toes are short for grasping objects

Like a finger, it curves inward

along the sphenoid line.



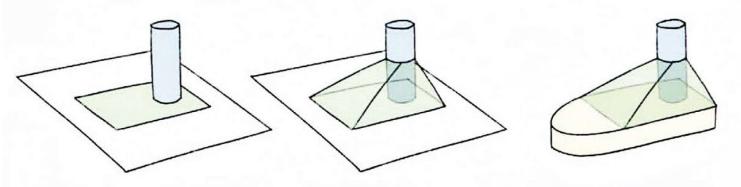




When viewed from the sole of the foot, the rounded tip is

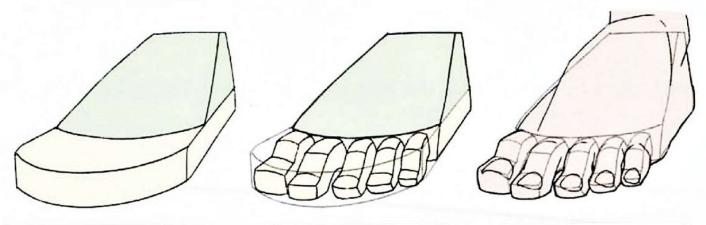
the most visible on the eye.

Let's figure out the structure of the foot. The first thing to consider is to hold the floor so that you can feel that the floor and the soles of the feet are in contact.



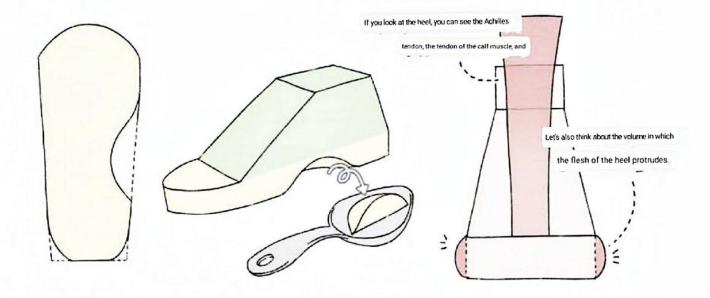
- Hold the floor and the sole of the foot, and build an ankle shape on the back of the sole.
- Connect from the sole of the foot to the ankle to make the top of the foot.
- 3. Stand up the sole and toe surfaces.

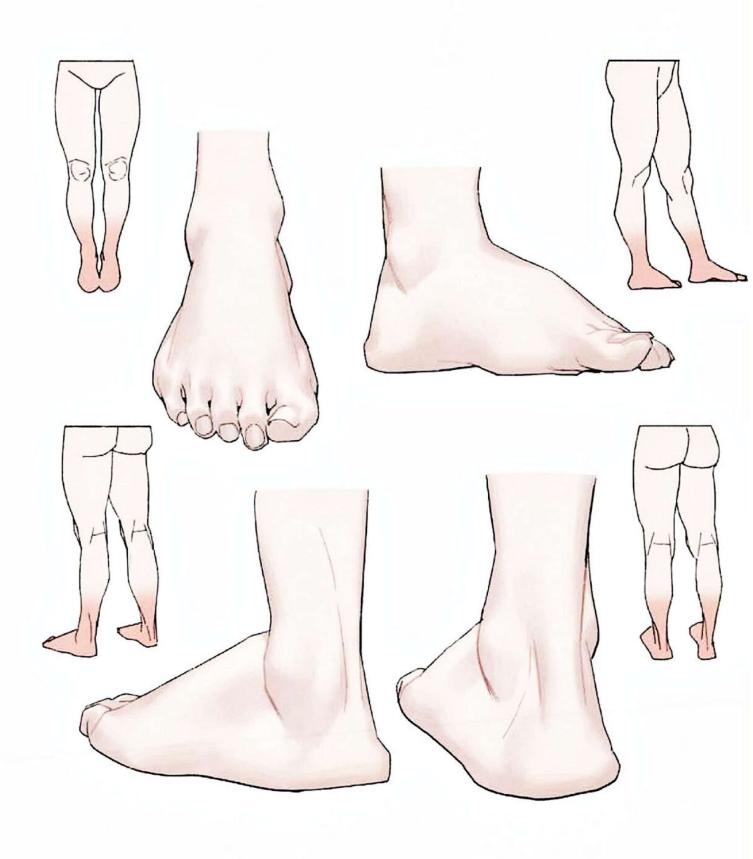
Because the toe has short joints, it is most important to draw a stepped figure and the toenail face at an angle.



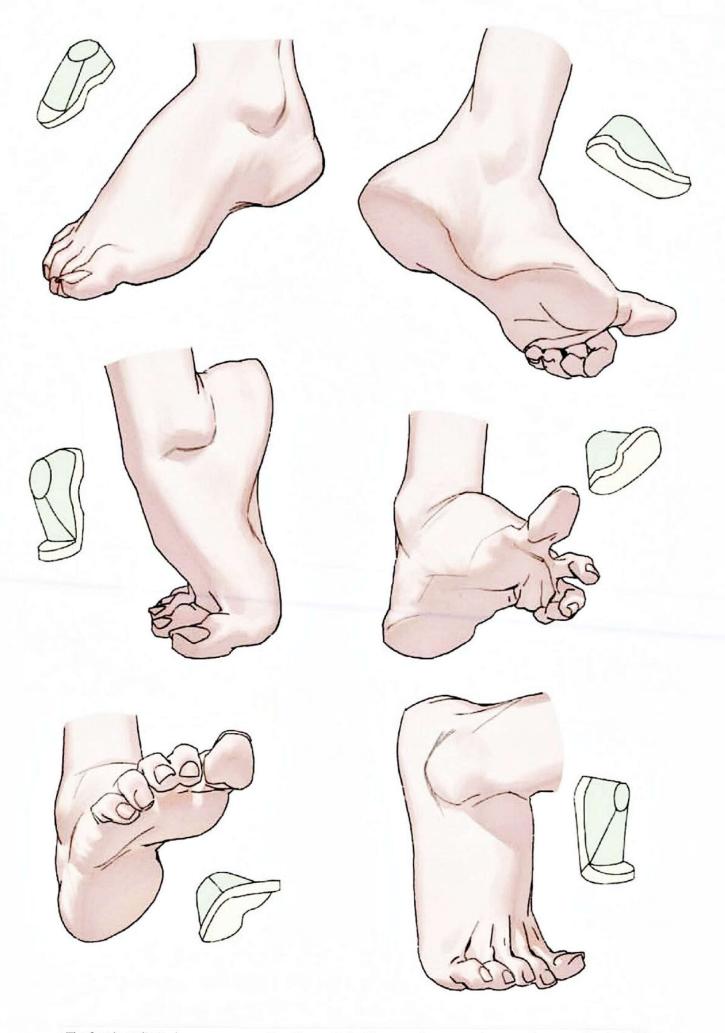
- From the front, hold the toe side that draws an arc based on the second toe.
- 2. Draw a step-like toe shape.
- 3. Draw the toenails and trim the shape.

The soles of the feet are curved inside. You can see this curve from the side as well. Let's recall the feeling of digging with a spoon.





Let's look at the feet from different angles. When drawing most of the feet, it is often the case that only movement is drawn. This is because when drawing a full body of a person, the eye level is often on the face. Let's practice by turning our feet around to draw a figure in various poses.



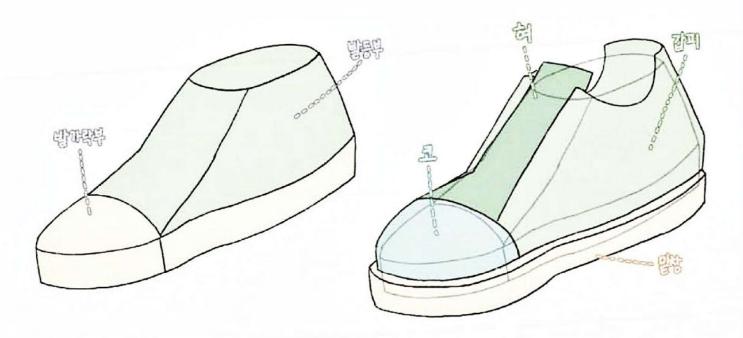
The feet have limited poses compared to other parts, but they can draw attractive enough poses. Also, let's observe and study carefully because the powerful and detailed description of the feet can make the character even more special.

## 23 shoes

No matter how hard you try to observe and draw your feet through your eyes, it is not easy to come up with a concrete image. Therefore, it is recommended to observe the structure of 'shoes', which can be observed most easily and frequently, and to understand the characteristics together.

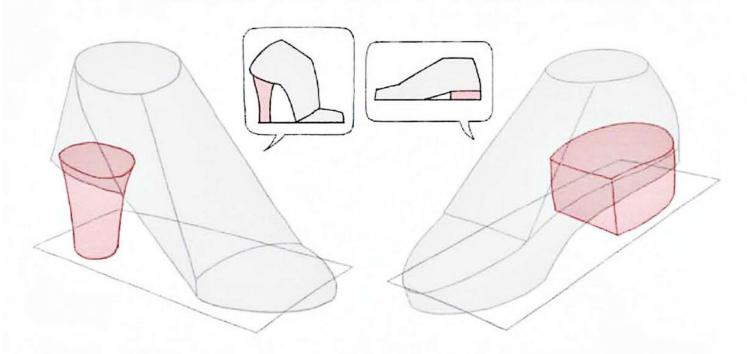


There are many types of shoes, but if you take a brief look at the structure of basic sneakers as an example, the 'upper' that broadly covers the entire foot. The 'tongue' separated from the upper for easy wearing by adjusting the size of the shoe, and the nose that covers the toes. And it consists of a sole.



The heel of the shoe naturally rises as the 'heel' located at the back of the sole rests on the floor. Therefore, after

holding the heel and the bottom of the heel that are attached to the floor, adjust the angle of the heel according to the length of the heel.



Other shoelaces are Velcro and buckles. There are various designs such as zippers, round or pointed noses, and so on. Considering the role of covering the foot in any design, it is better to draw the shape of the foot first and then draw it step by step with the idea of putting on shoes.



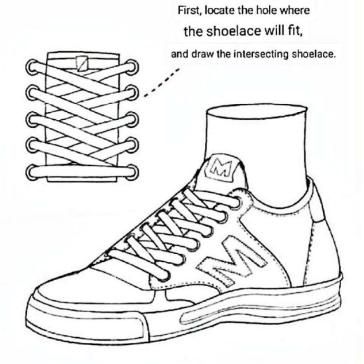
## 83 drawing sneakers



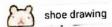


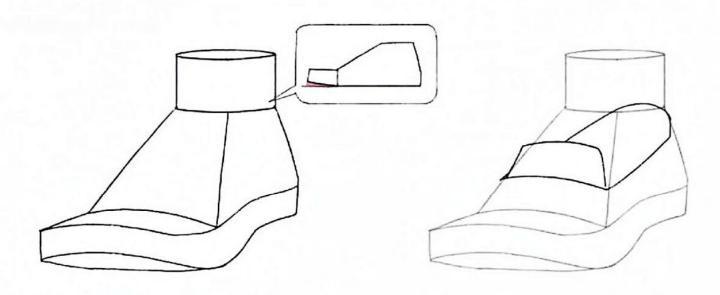
- 1. First, hold the feet in the shape of a figure.
- 2. Draw the 'tongue' of the shoe and the 'upper' that covers the ankle.



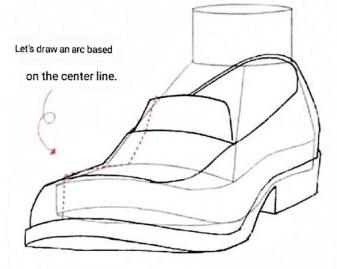


- 3. Position the hole for the sole and shoelace to fit in.
- 4. Draw and arrange details such as cross-tied shoelaces and embroidery or logos for shoes.





- When looking at the shoe from the front, the 'nose' part of the shoe is slightly
   raised from the ground, so the sole of the shoe is visible.
- 2. Hold the 'upper' part that covers the tongue and ankle of the shoe.



Consider the height of the heel and draw the sole, but it is recommended to draw a stable arc by drawing a guideline for the front nose part.



Draw and arrange the stitching lines and decorations of the shoes
 according to the volume.



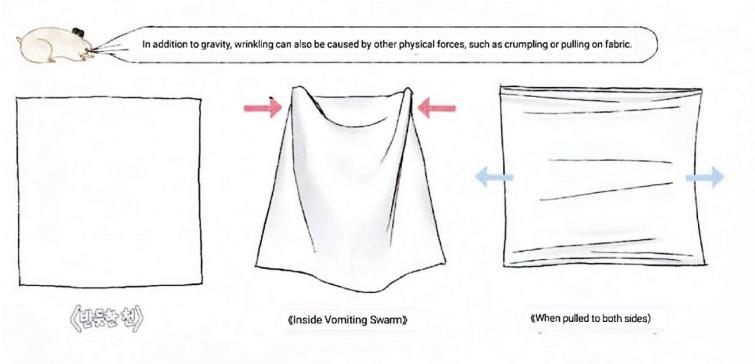
Let's draw various shoes! Let's look at various designs of shoes according to the shape of the feet and express natural shoes by considering the materials and characteristics of the shoes.



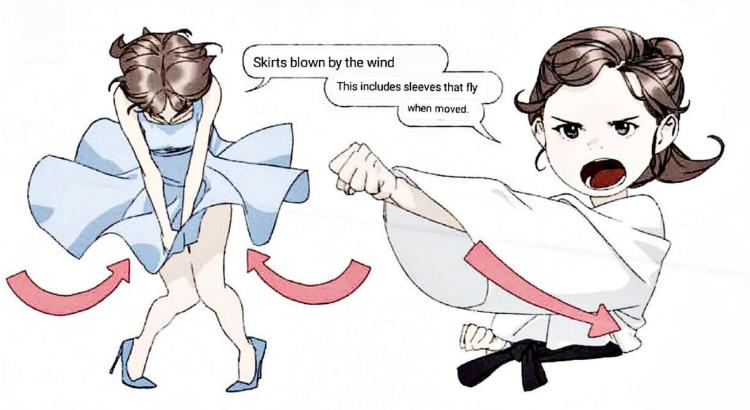
It is very important to naturally describe the wrinkles that occur on the clothes in order to dress the character in various outfits. Although the appearance of wrinkles changes depending on various factors such as movement, material, and size, let's talk about the most basic 'principle' first.



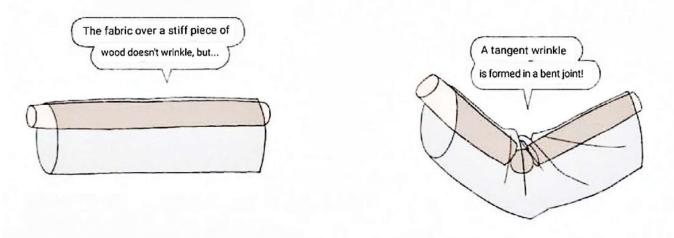
If there is a bottom like this, the fabric will fall down and clump together.



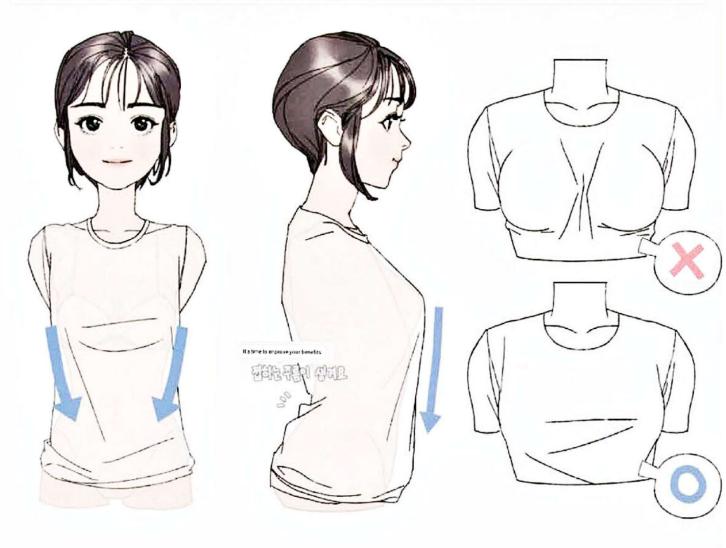
It is recommended to draw flexibly according to the situation, as wrinkles are formed even by wind or inertia without applying any physical force.



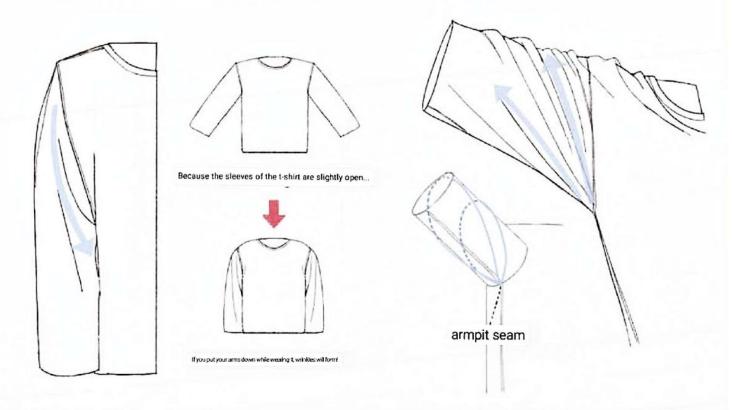
Also, since the human body is bent and stretched by the joints, the wrinkles that occur when each joint moves must be considered.



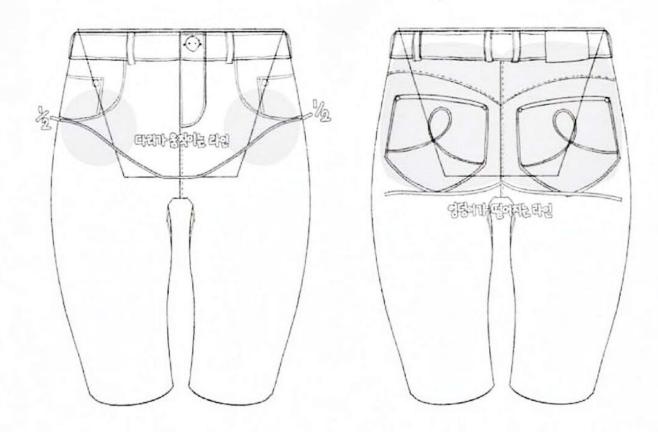
The upper part of the upper body, the chest, which is the highest part of the upper body, has folds that fall down, and the space between the breasts has pulling folds.



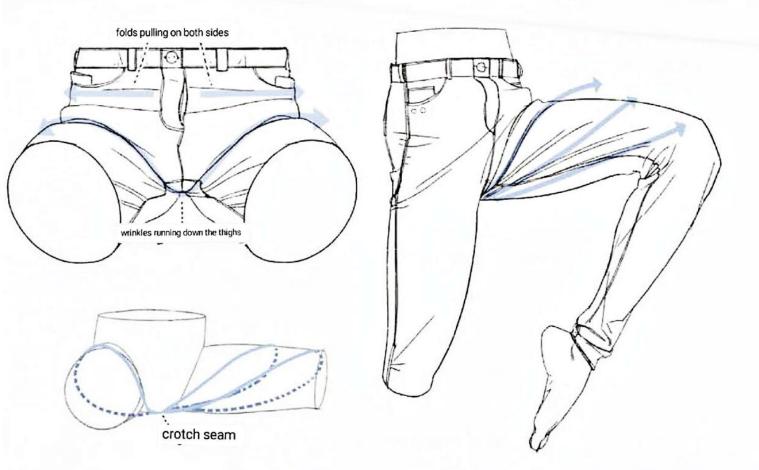
When the arm is down, wrinkles appear from the shoulder to the inside of the arm due to the basic shape of the T-shirt.



Pants should be wrinkled with the movement of the legs in mind. From the front, the crease is along the line of movement of the leg from ½ position of the pelvis to the crotch, and from the back, the crease along the line where the buttocks drop.

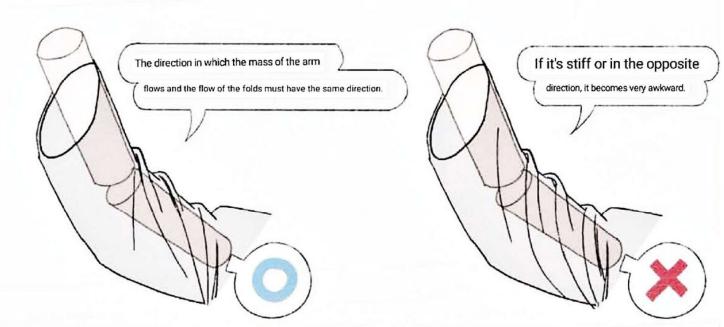


When the leg is lifted, wrinkles appear that run along the volume of the leg from around the seam of the crotch, and thin wrinkles also appear at the seam of the inside of the leg.

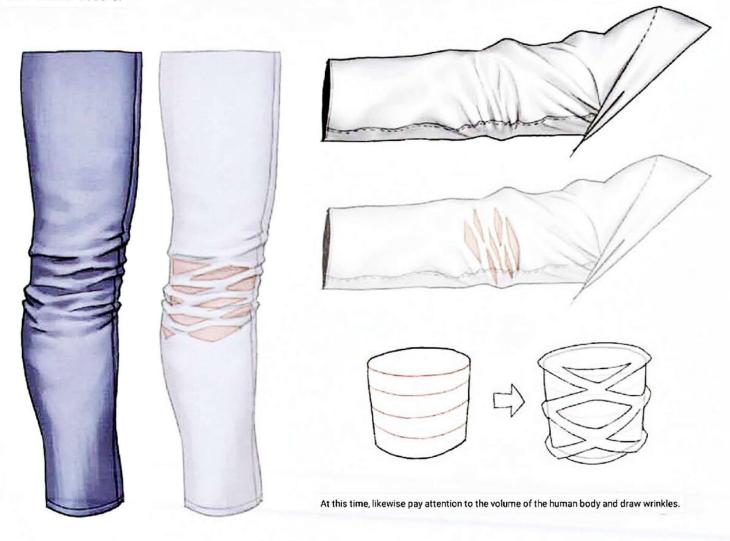




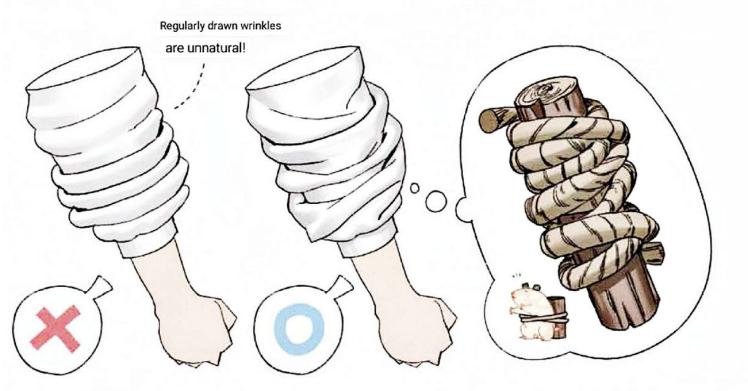
At this time, the part in contact with the skin follows the shape of the human body by gravity, so pay attention not only to the direction of the wrinkles but also to the flow.



A unique type of wrinkle occurs in the joints, where folds often occur, and a diamond-shaped wrinkle reminiscent of a 'waffle' occurs.



When you roll up your sleeves, you can find deep and dense wrinkles irregularly. It is good to think of the shape of a rope wrapped around a piece of wood.



In addition to cloth, there are various types of clothes. Depending on the thickness of the material, from the thin side to the thick leather, the pattern of wrinkles that are caught also changes. The thinner the material, the denser and more wrinkled, and the thicker the material, the larger and thicker the wrinkles.



Not only the material of the clothes, but also the size of the folds change the appearance of wrinkles. Oversized clothes have wrinkles that fall down and gather. Clothes that fit snugly on the body usually have wrinkles that are pulled.

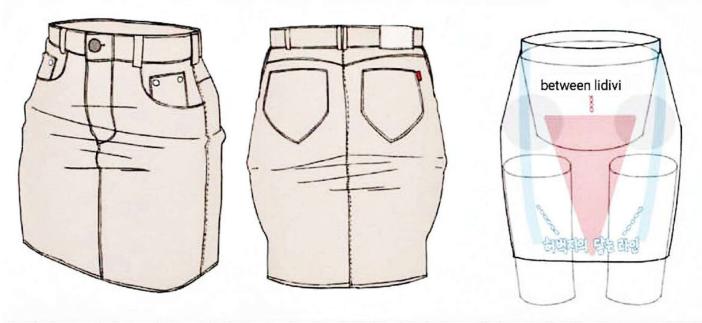


If the finish of the clothes is banded, wrinkles will gather over it.



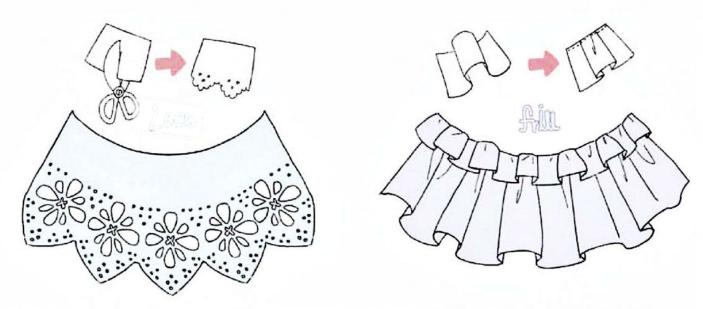
In the case of tight-fitting clothing, it is often a thin material in order not to restrict movement.

There are many different types of skirts. Let's take a look at some typical skirt types and find out what kind of wrinkles occur.

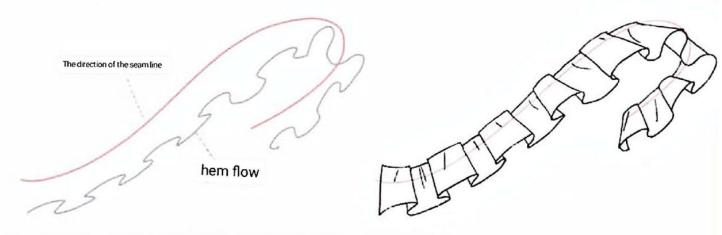


The H-line skirt is a skirt that is attached in a cylindrical shape from the waist to the thigh. Therefore, there is a wrinkle that is pulled from the point of contact with the leg.



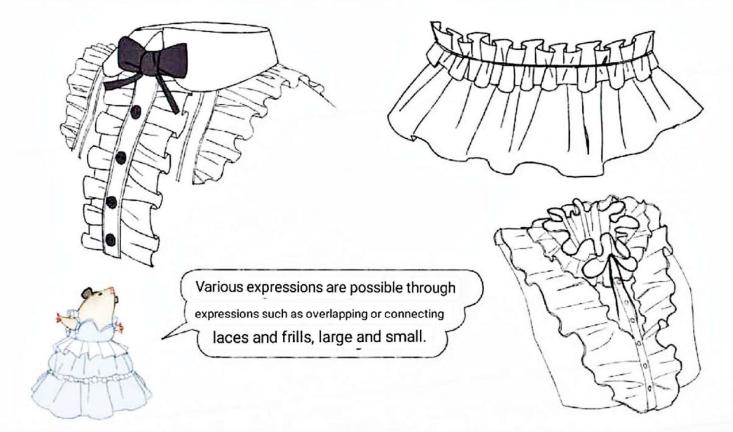


\*Learn about lace and frills, one of the most common decorations on skirts and sleeves. In general, it is often mistaken for ruffle lace, but a decorative fabric with a pattern engraved on it is called a lace, and a decorative fabric made by sewing pleats is called a frill.



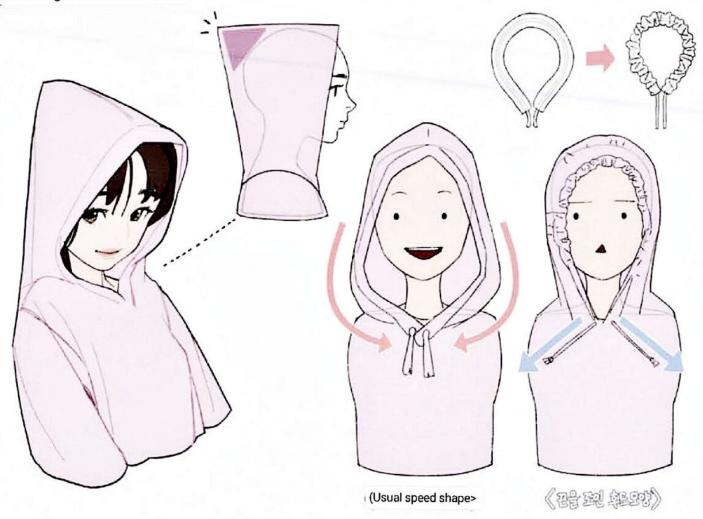
Because the patterns of lace are many and complex, it is better to get help from materials. In the

case of a frill, it can be expressed simply by connecting the direction of the seam line and the flow of the wavy hem and drawing wrinkles.

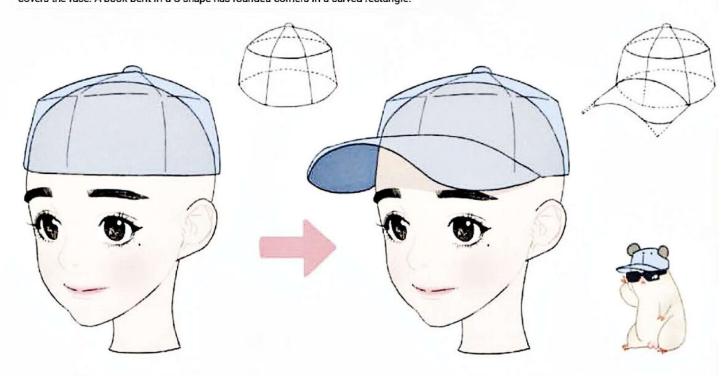




When you wear a hat, a triangular empty space is created over the back of the head by the seam of the hat and it hangs over the shoulder.

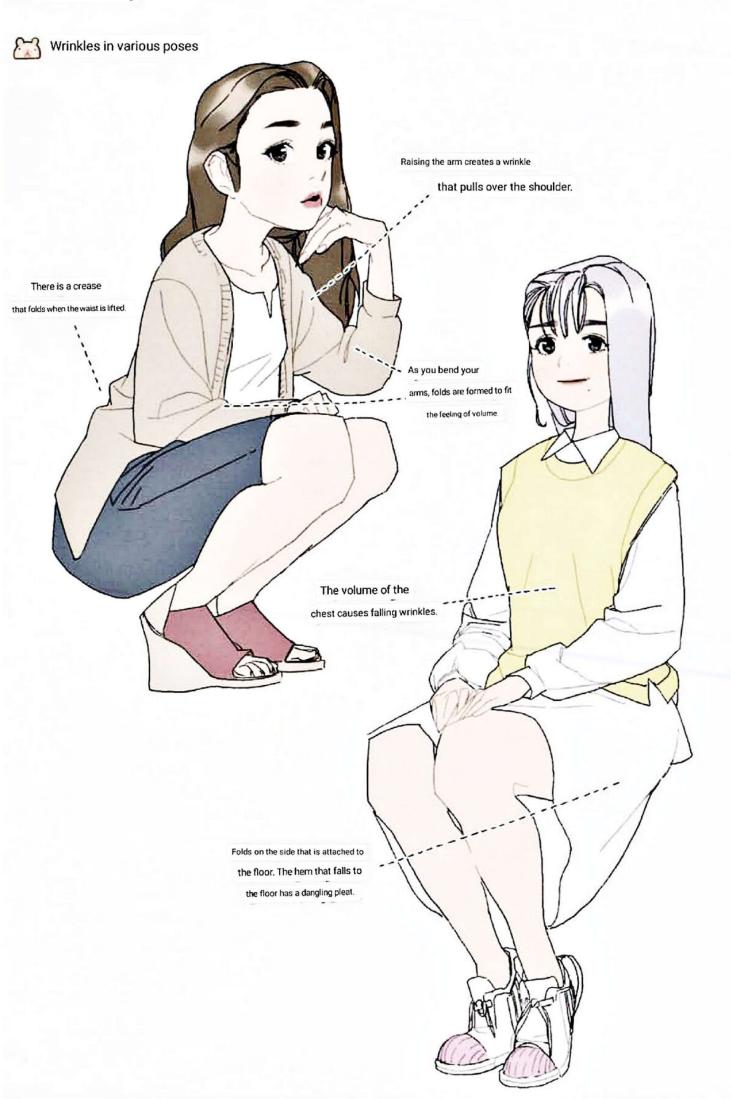


It is recommended to draw a hat with a brim separately from the part that covers the head and the brim that \_\_\_\_\_\_ covers the face. A book bent in a U shape has rounded corners in a curved rectangle.



There are many different types of hats, but you can apply them without difficulty by first drawing the head in the above order, then changing the brim or removing the angle in the hat drawing method.

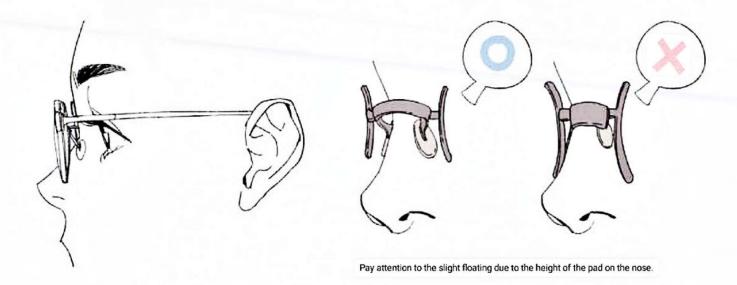






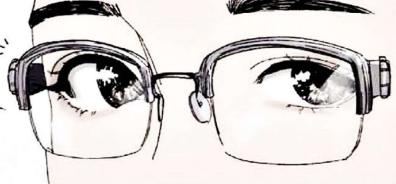


The legs of the glasses are bent downwards and are hung over the top of the kerchief, and the pads are fixed on the bridge of the nose to support the glasses.



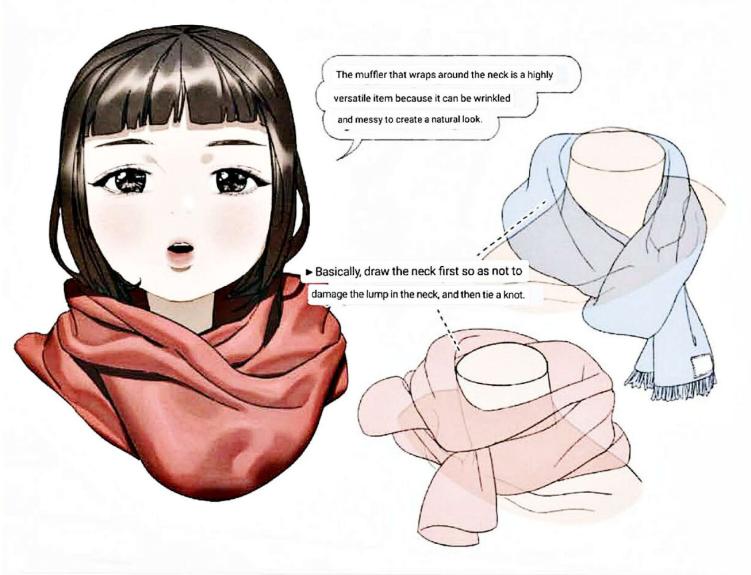
in the shape of the outside and inside of the lens.

When a lens has a power, refraction causes a difference



It is an essential horn decoration for fantasy characters. The position of the horns is attached to the protrusions on both sides of the forehead, and let's make various designs by referring to the teeth and horns of various animals such as goats, deer, and rhinos.

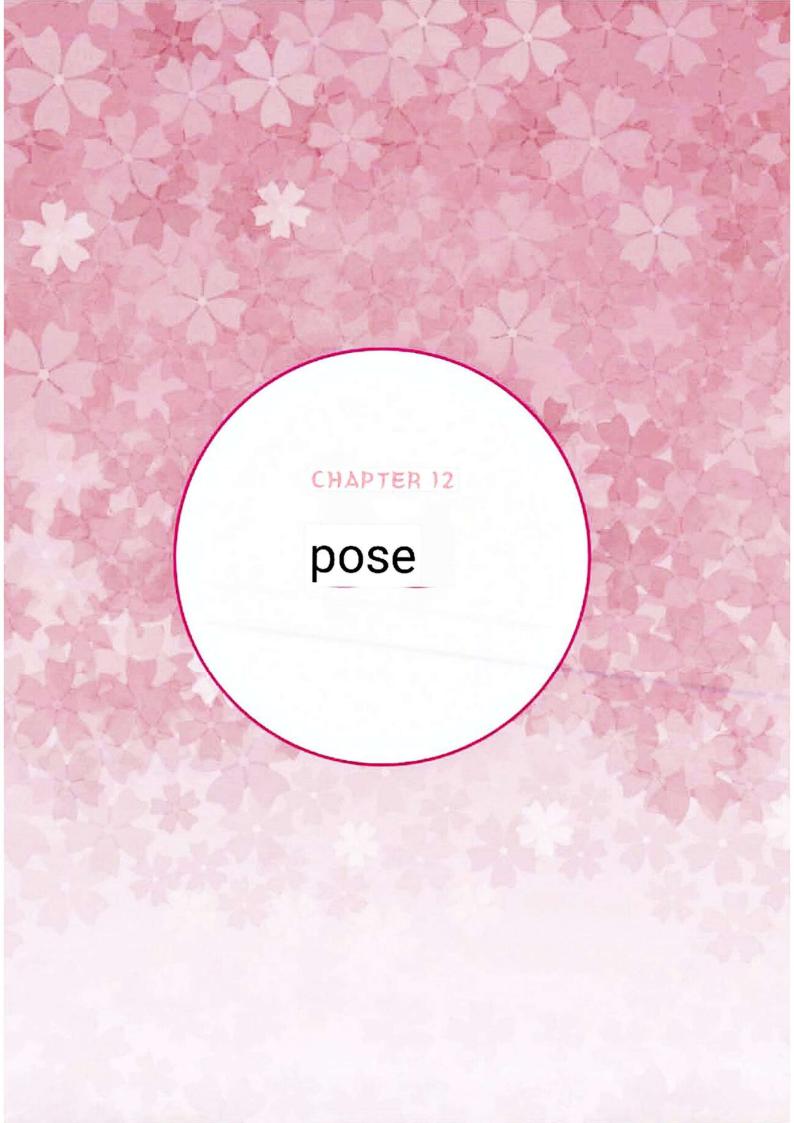




If it is drawn too close to the neck, it can look cramped, so let's take a size large and add large folds to bring out the three-dimensional effect.

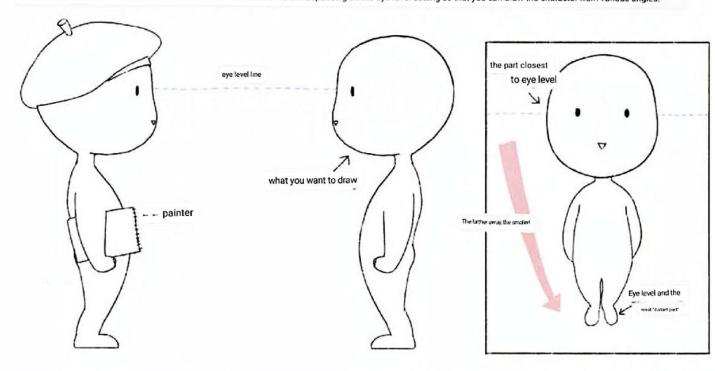




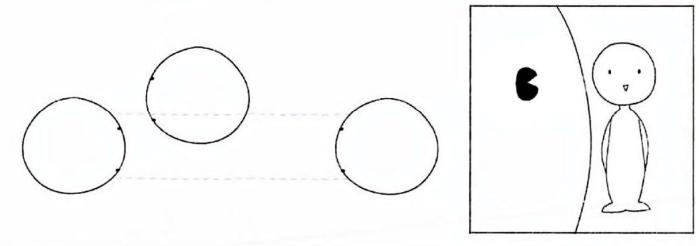


The eye level in the picture is the position of the gaze looking at the character when drawing the character.

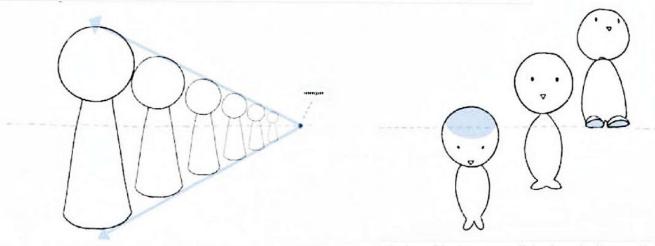
In other words. You need to understand how the character looks different depending on the eye level setting so that you can draw the character from various angles.



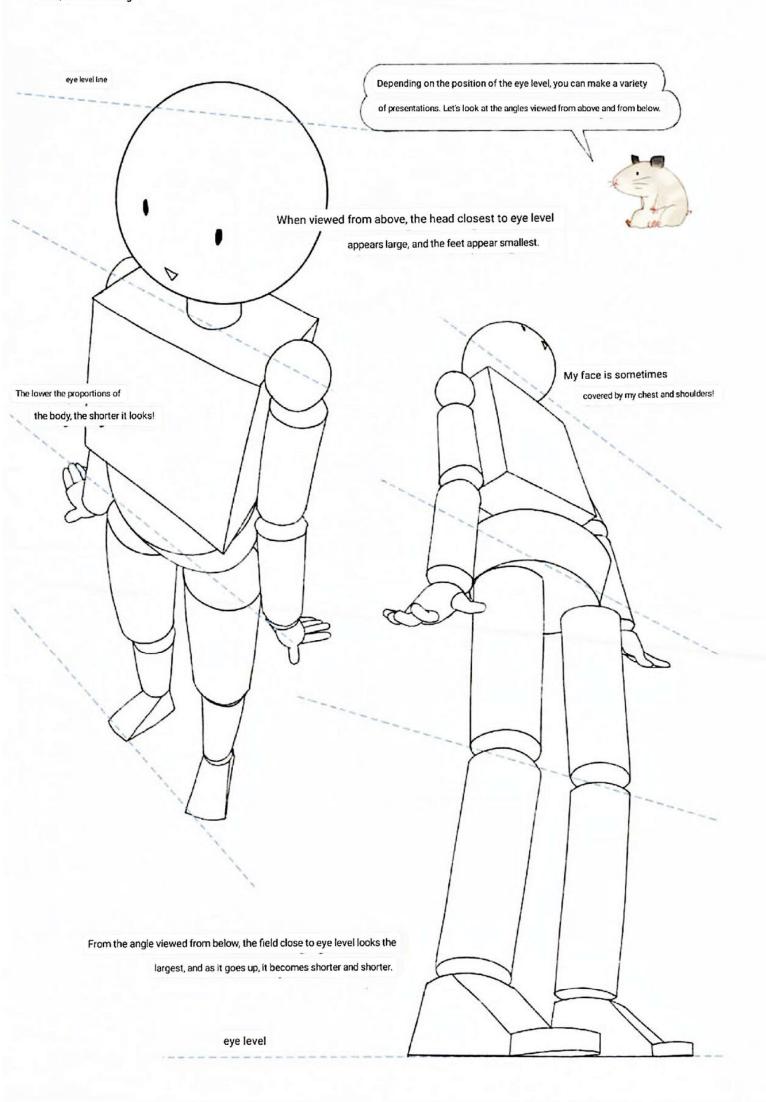
Even if you draw a person standing in the same way like this, the shape will change depending on the position of the eye level looking at the object.

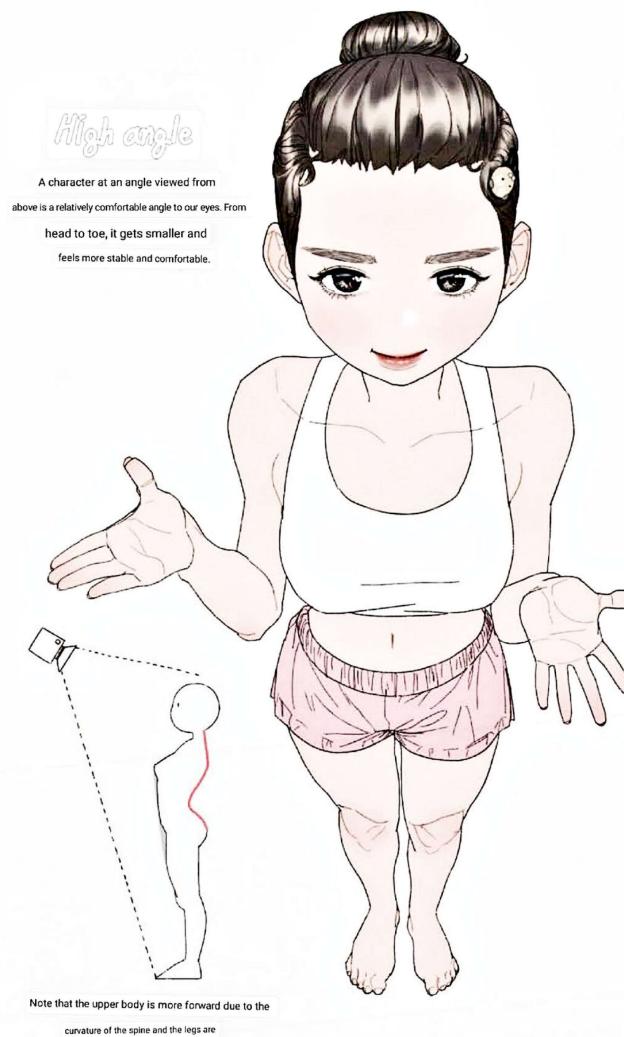


When objects of the same size are placed in different positions, it is the same reason that objects that are nearby appear much larger.

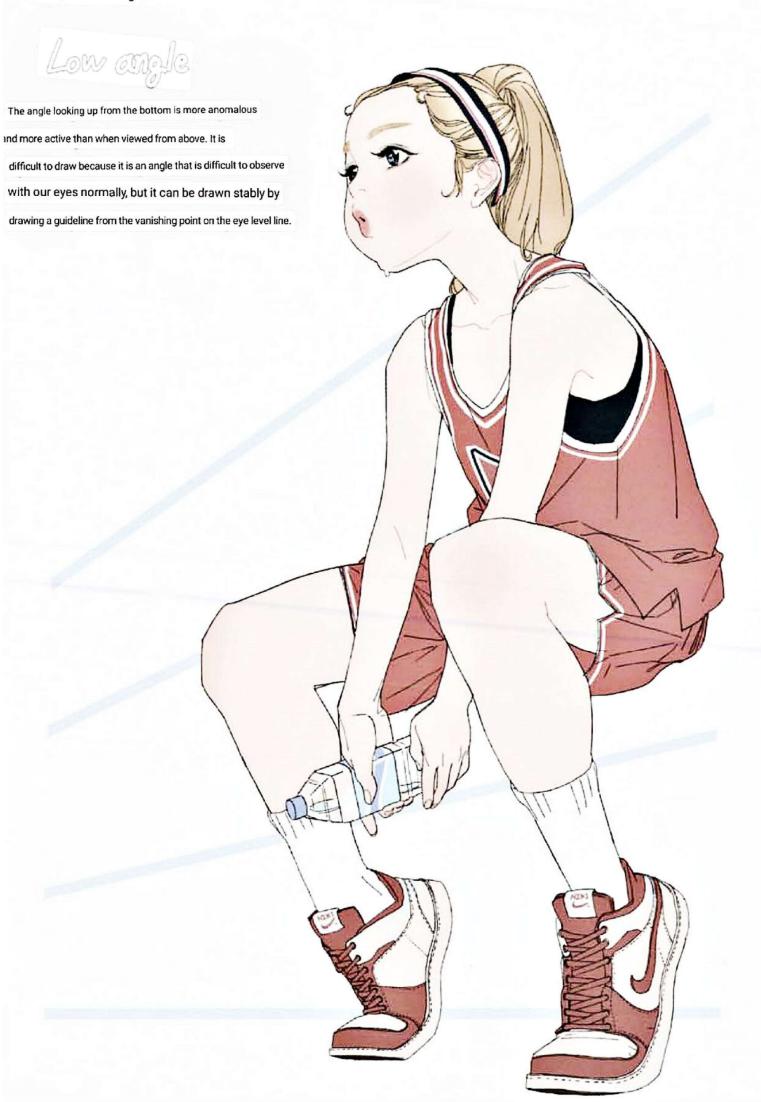


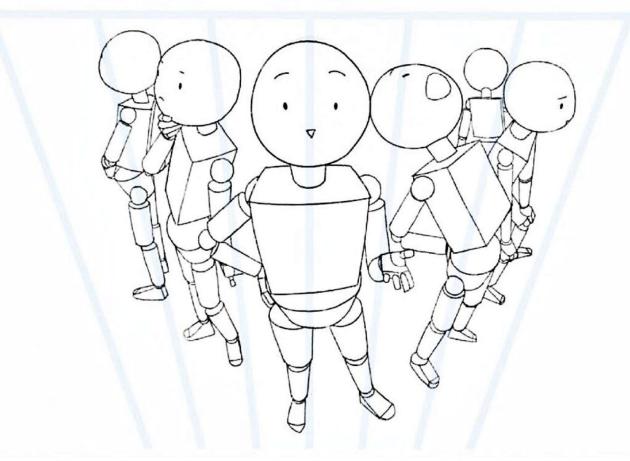
The shape of the object above and below the eye level line is visible from the top to the bottom.





shorter because the pelvis is pulled back.



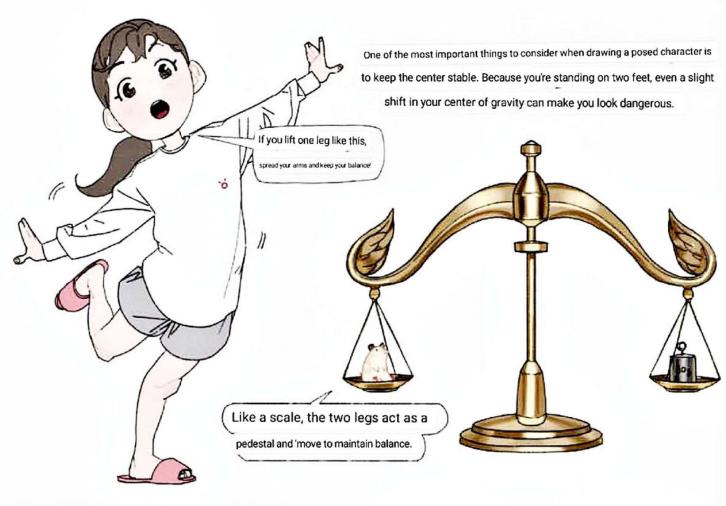


In a production with multiple characters, all characters must have the same eye level value to feel as if they are in the same space.

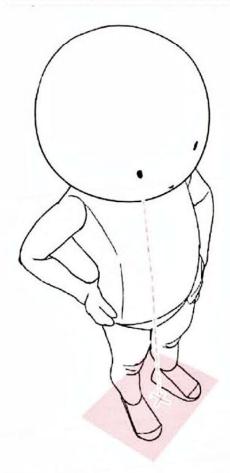


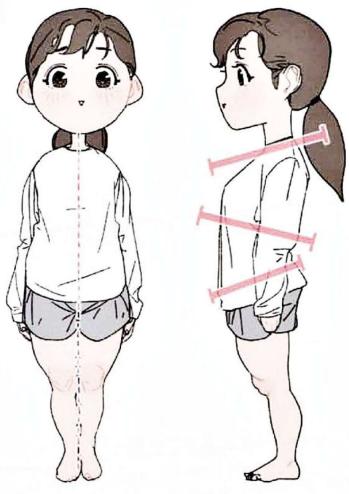
If the characters have different eye height values, the connection to space is lost, and it feels like space without gravity.





The head, the most important organ in the human body, becomes the central axis of balance. Therefore, when drawing a vertical line from the head to the floor, it should be located in the center of the two feet for a stable pose.





Also, remember that the sides have their own angles to distribute the weight.

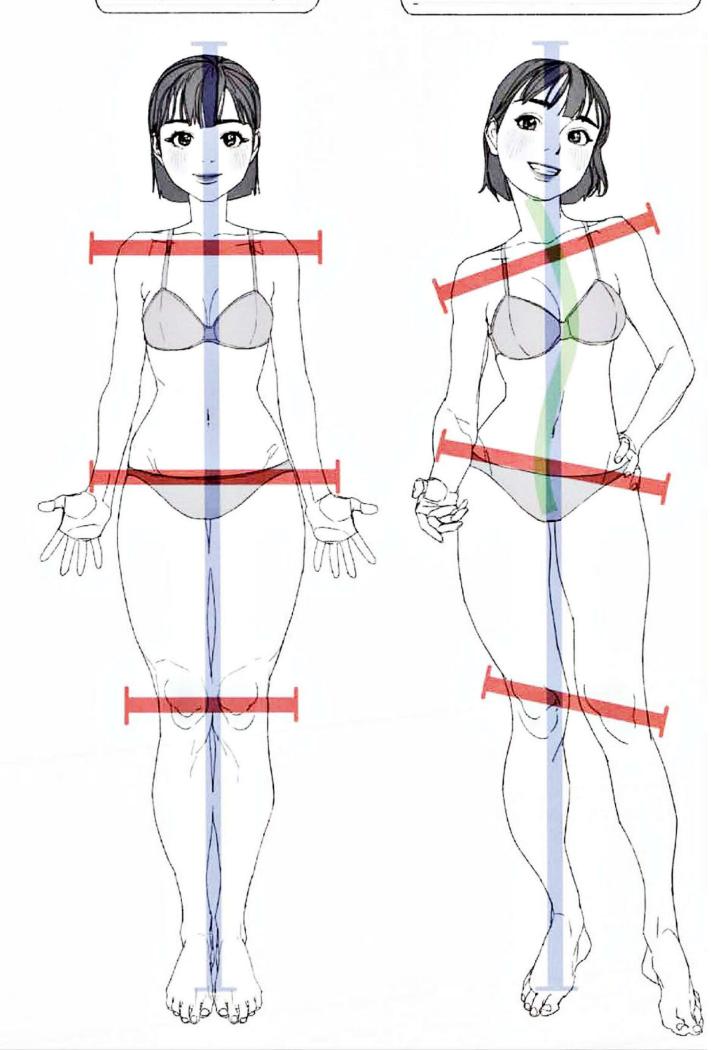


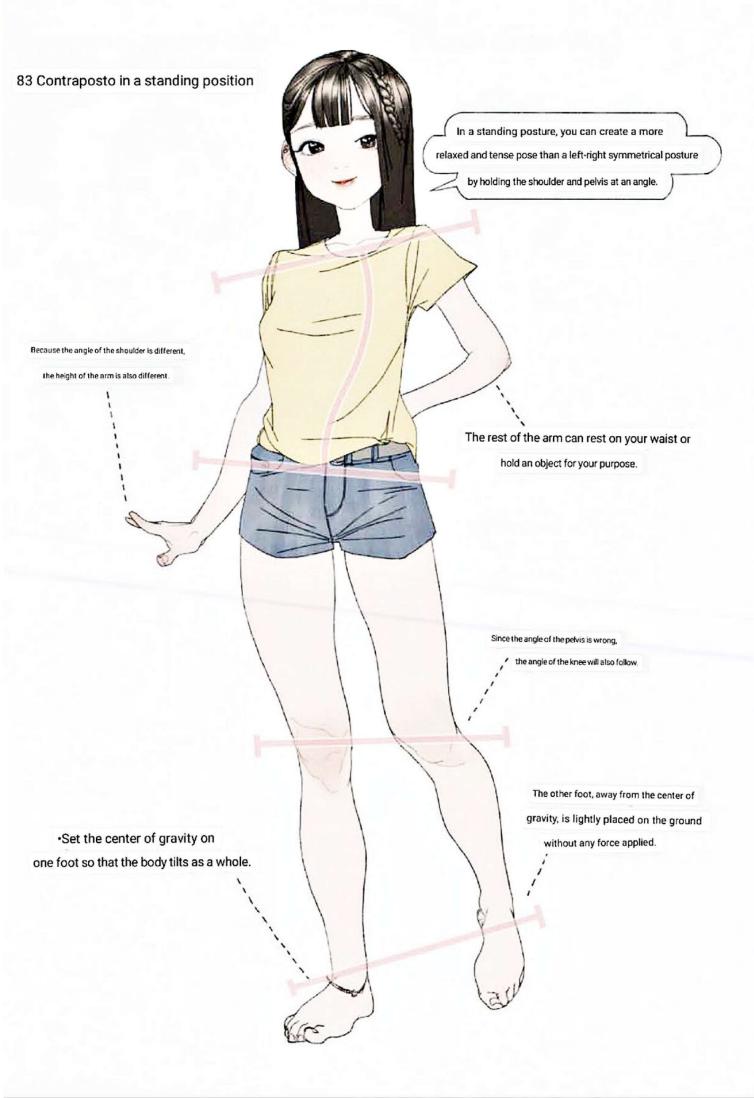


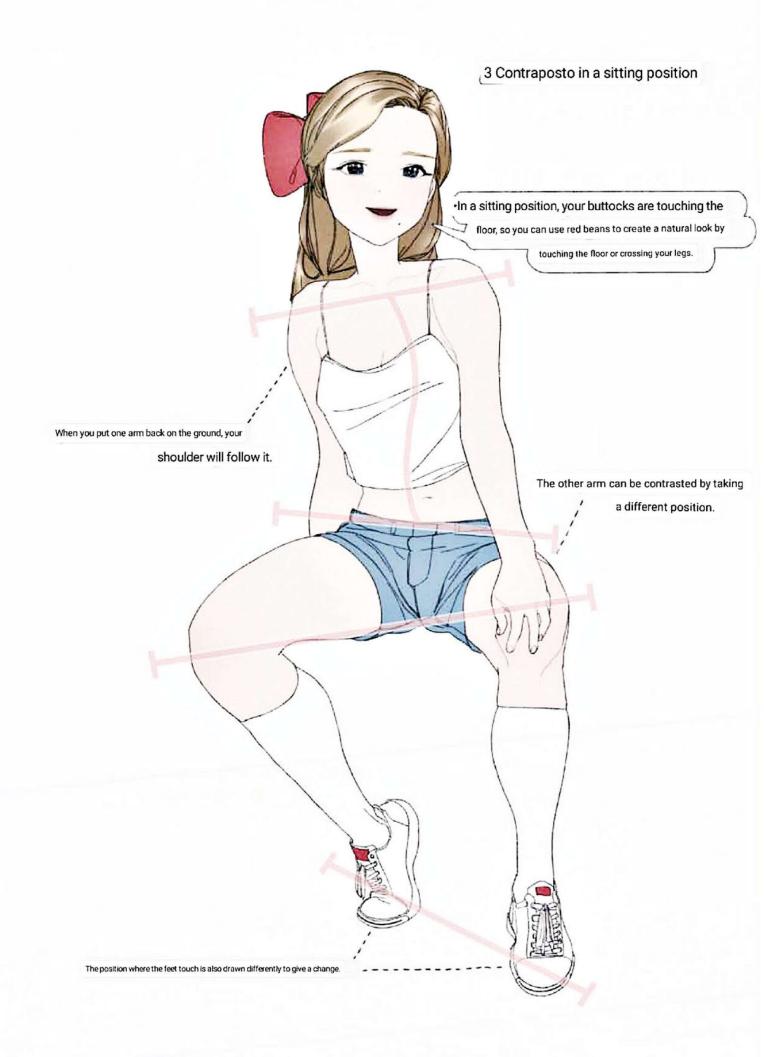


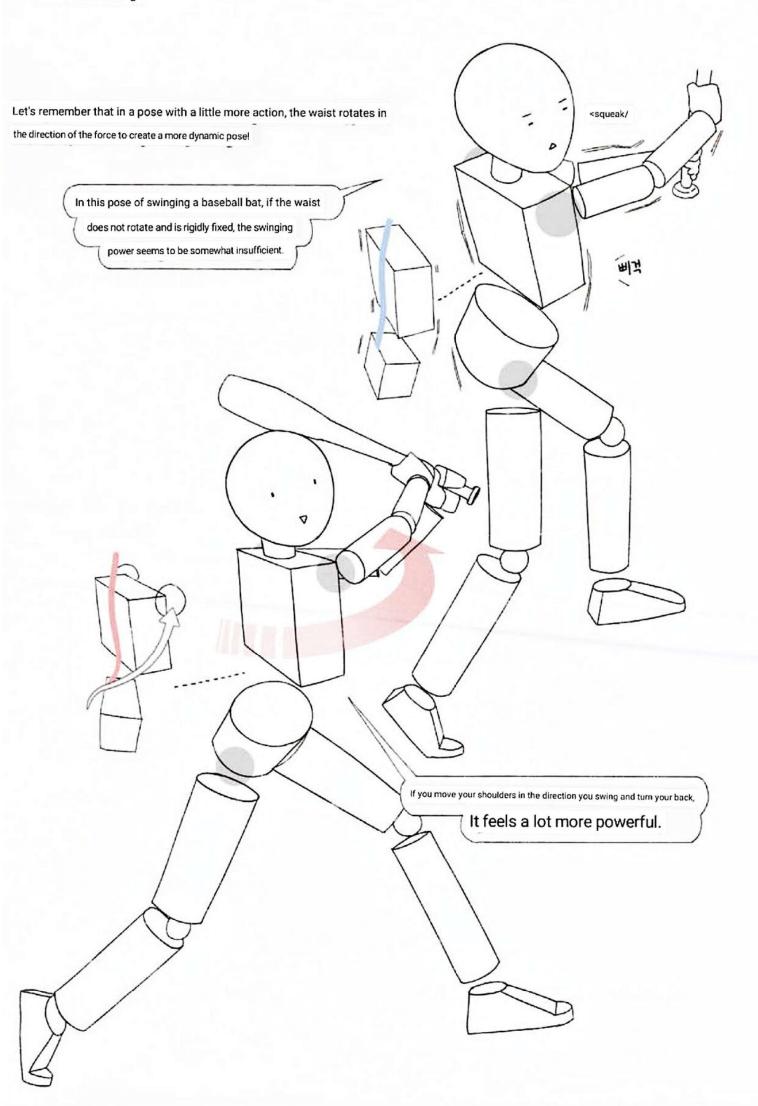
Center of Gravity and Axes for Common Standing Pose

Center of gravity and axis of standing pose with contraposto applied









Even in a standing pose, if you lift your back slightly, you can create a much more flexible and attractive pose.



## 1 Various poses

Even in relatively static poses such as a simple standing or sitting pose, you can create a variety of interesting poses by raising the angle of your legs or arms or bending your back. Let's look at some examples of poses.











## What difference do you see in the two pictures?

Both pictures were drawn by me referring to the model image, but the picture on the left is the pose taken by the model in the picture. The figure was drawn with reference only to the body type, and the figure on the right was drawn while observing and carefully examining various factors such as the material of the clothes, size, and the location of the center of gravity.



As you may have noticed, the crucial difference between the two figures is the difference in observations.

The picture on the left can never be considered a rotated picture, but compared to the picture on the left that relied on only learned knowledge, the picture on the right looked more natural and realistic.



So, what kind of practice do you need to practice to develop this observation ability?

#### First. to observe

This is the most basic and natural way. Let's get into the habit of closely observing real objects with our eyes and constantly ask ourselves questions.



Let's be curious and ask questions about all these things we took for granted.

Even if it is difficult to find an answer, the images that are stuck in the head through these observations and questions are bound to be very useful help when drawing.

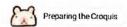
### Second. Draw the observed object

Questions raised through observation can be answered through searches or books. But trying to put this into a picture gets very complicated in my head. Therefore, while observing, draw by hand Through this, it is necessary to increase the understanding of the structure and gain the confidence to draw freely.

This process, the practice method of sketching the movements and shapes of a person in a short time is called croquis.

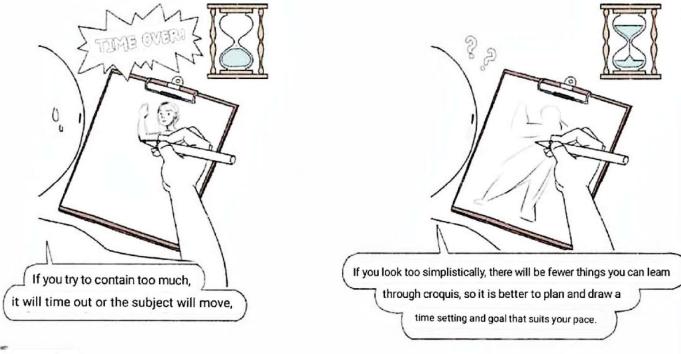
So, let's find out what to prepare for croquis and how to proceed!





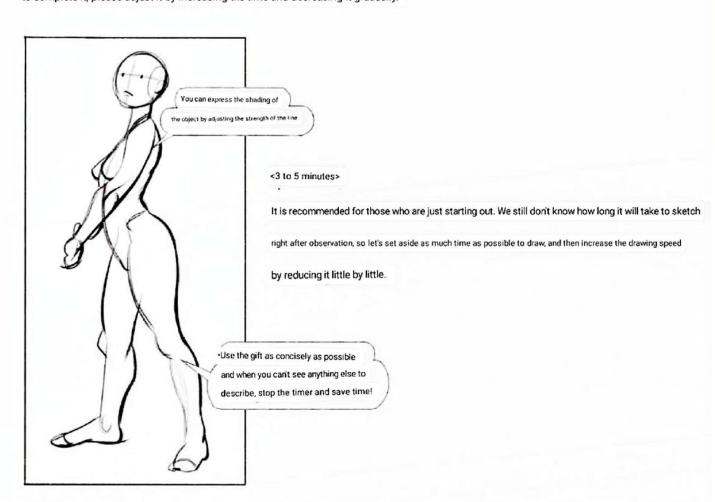
Croquis is a practice method of sketching objects in a short amount of time. Therefore, it is very different in character and direction from precise depiction without time constraint.

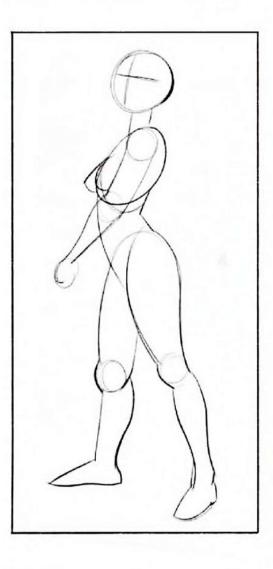
The key to croquis is to focus on understanding and acquiring the outline, structure, and characteristics of an object.



### 1 Time setting

It's good to see the actual model in person and croquis, but if the situation doesn't work out, let's use an image from the internet to set a timer and do croquis. The story about time setting is my subjective opinion, so if you are just starting out, please draw it as a reference, and if it is difficult to complete it, please adjust it by increasing the time and decreasing it gradually.





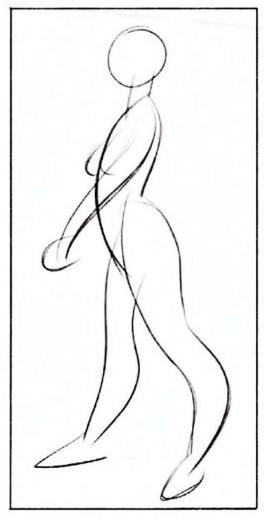
<1 minute to 3 minutes)

This is a good time to quickly figure out the structure of an object and sketch its outline.

Those who have gained some speed will increase their observation level during this time.

We recommend that you try croquis.

\*Ratio of objects. Easy to observe based on poses



<< 1 minute >

Since the time is very short, it is necessary to grasp the large silhouette or flow of the target at a glance. Therefore, it is necessary to focus on the overall flow rather than the detailed curves and fast croquis.

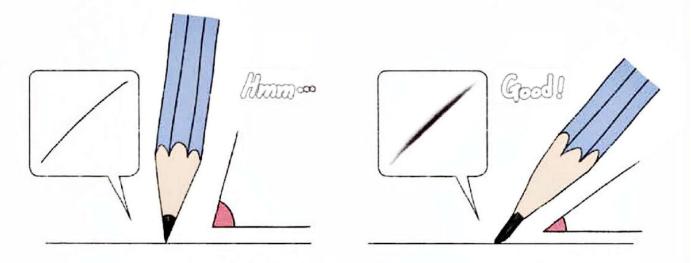
\*Effective for reading the unique flow caused by a pose or body shape!

Let's take out the pencil we use often. There are different types of pencil lead strength, so if you usually use a lot of force in your hands, use a lead of about H.

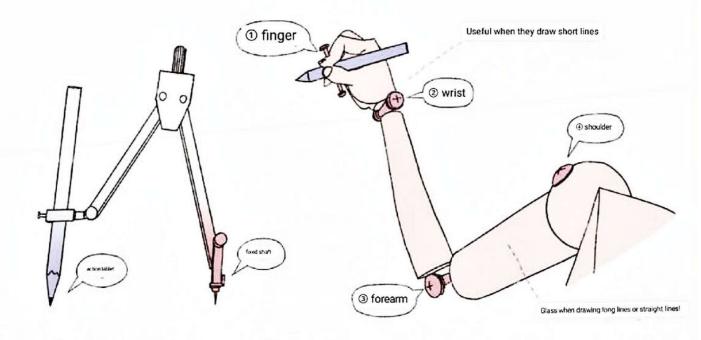
HB.2B. If you don't have a lot of strength in your hands, we recommend a 4B, 68.88-strength pencil.



When sharpening a pencil, it is recommended to sharpen the tip of the pencil slightly bluntly, as friction with the paper is strong and it is difficult to draw a smooth line when sharpening the pencil.

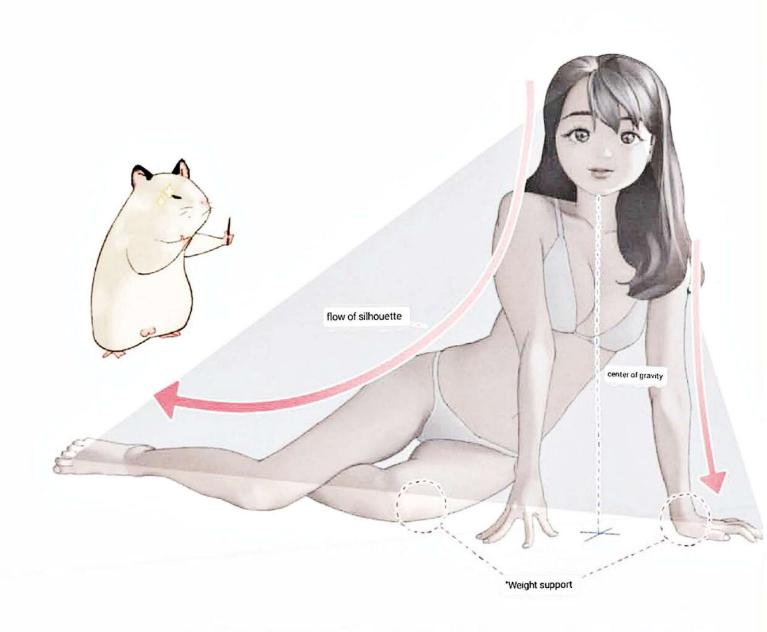


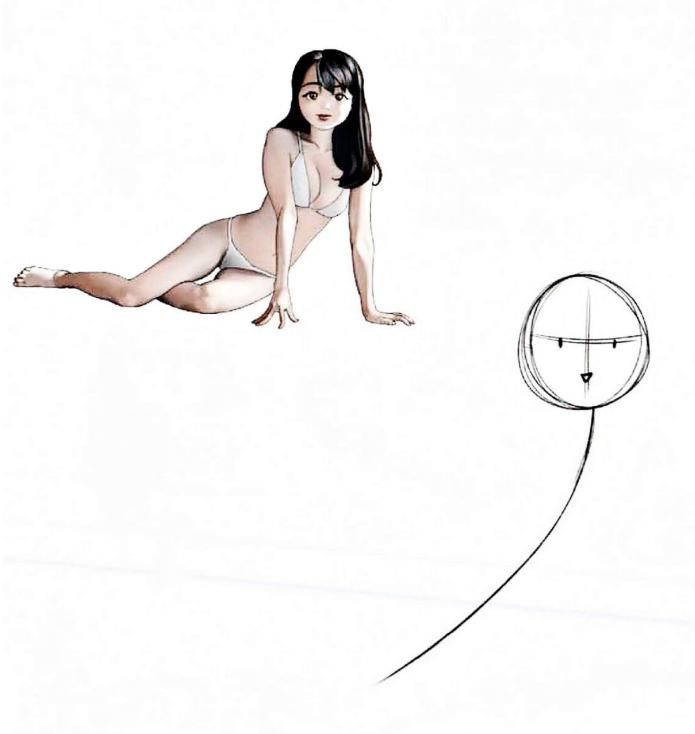
The closer the angle of the pencil toward the paper is to a right angle, the stronger the friction.



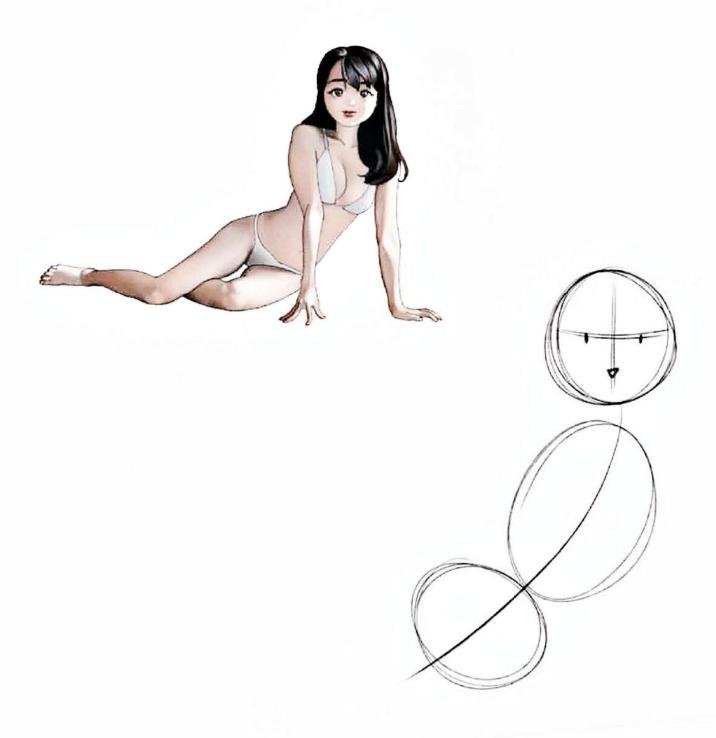
If you think of a compass, you can see that there is a fixed axis and the shorter the distance from the side to the piece, the greater the kung fu, and the longer the gift, the longer and straighter the gift can be drawn. In this way, our arms also have an axis, and the curvature of the line we want to draw. Let's draw by changing the axis according to the length.



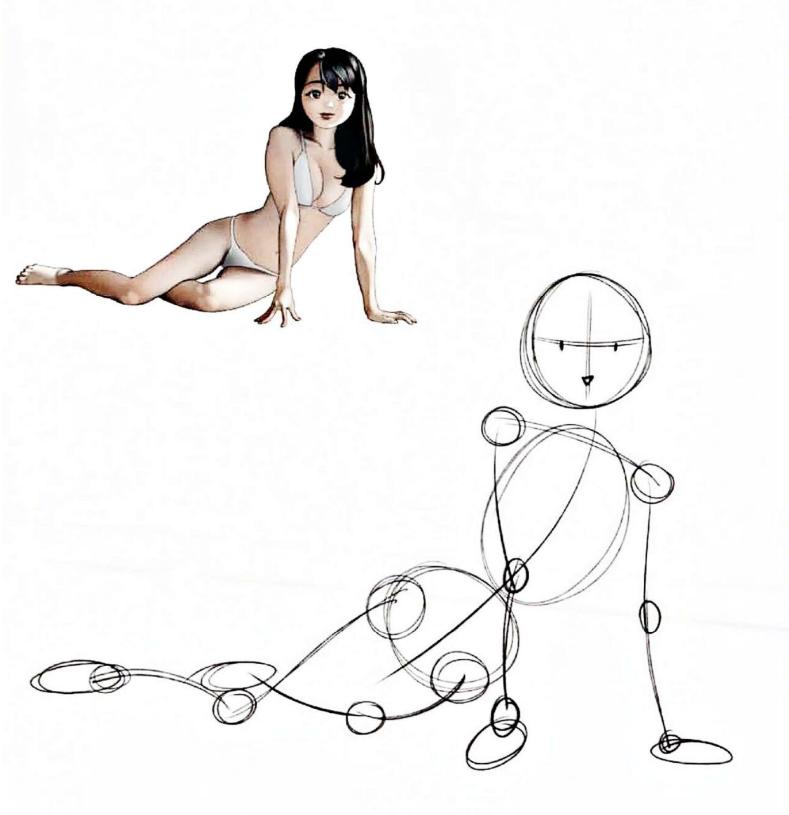




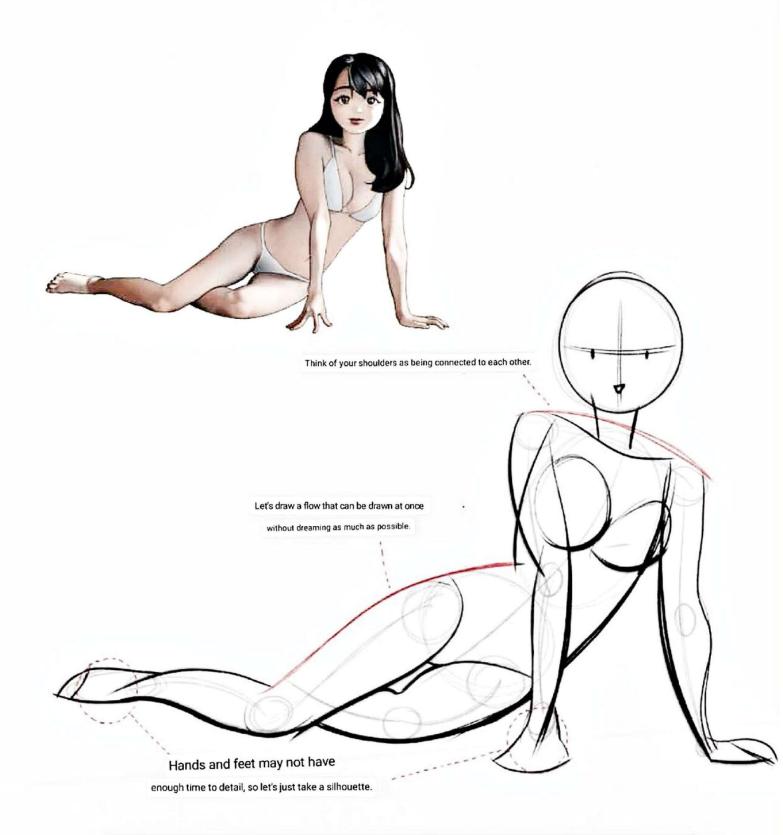
First, hold the head and center line. At this time, rather than drawing the head first, think of drawing the part closest to the gaze first according to the pose.



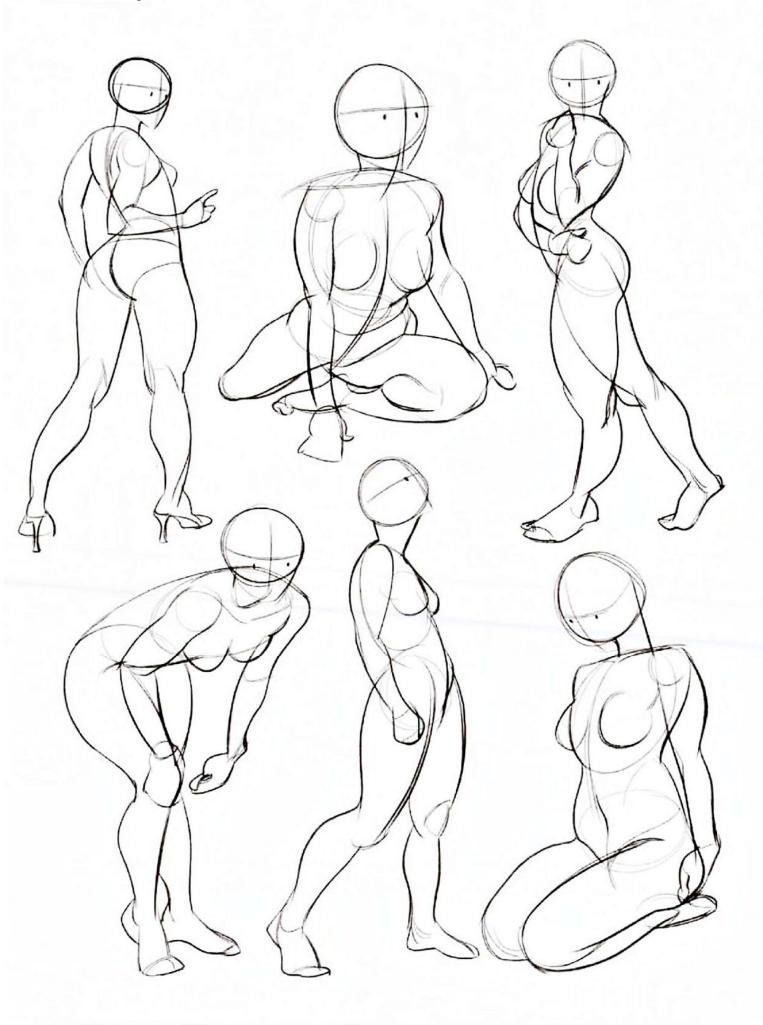
Draw the rib cage and pelvis. Let's express it in a simple oval shape rather than a detailed expression, and pay attention to the size and angle proportional to the head.



It holds the joints and bones of the limbs according to the silhouette.



Draw the overall shape. At this time, draw the parts covered by other parts by inferring roughly. If you do not have enough time until this step, increase it little by little, but if you have time, reduce the time by that amount rather than adding unnecessary lines!



various body types. Let's look at the model in the pose and do croquis. Croquis has the power of observation and structure. It is a good practice method to develop form power. But only croquis! Remember that doing this is by no means a panacea, so it is an effective practice method!

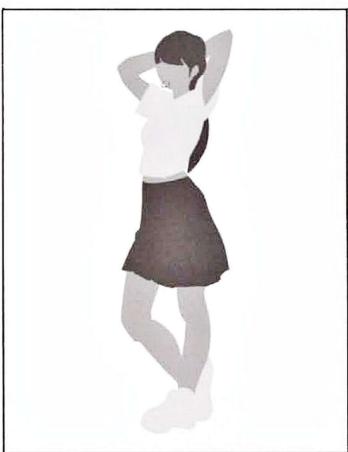


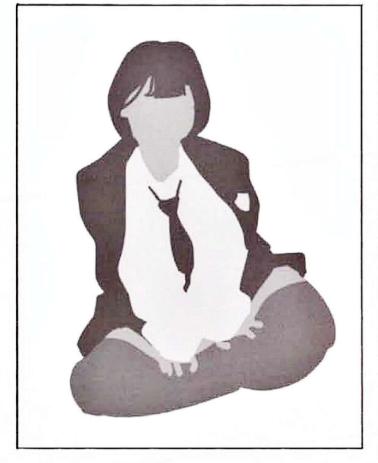
CHAPTER 14

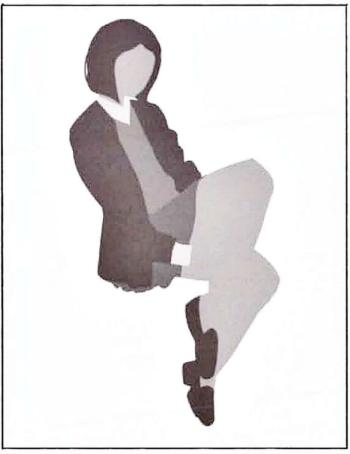
# Tutorials

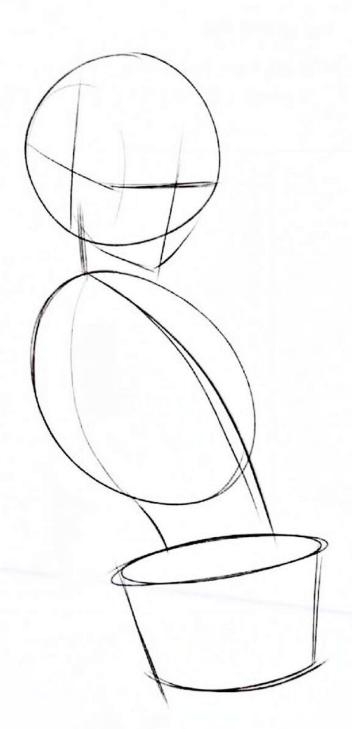
### First, let's make some drafts to organize the abstract images in our heads. At this stage, if you make a few poses and silhouettes and adopt one for this work, you can reduce unnecessary time wasting, right?





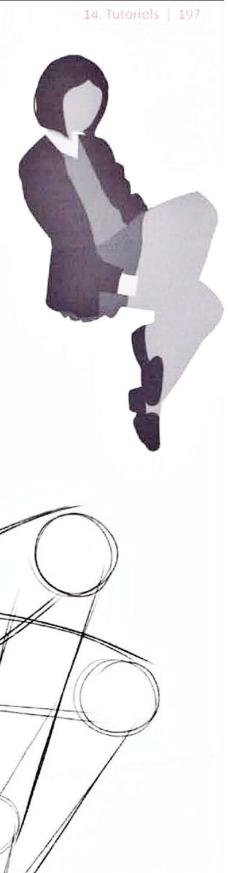








Let's draw the fourth draft. First, hold the center line of the upper body
 and draw the head, rib cage, and pelvis.



2. Draw arms and legs to match the silhouette.

At this time, let's hold the hidden part together.





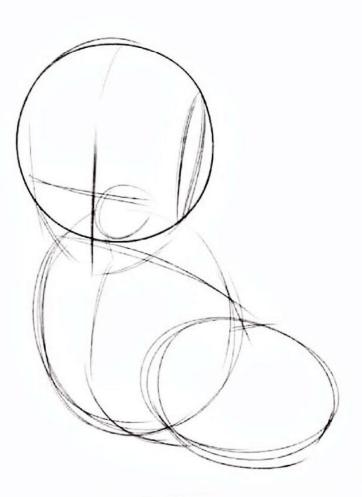








1. Let's draw a female devil character! As in the previous process, we start with a few sketches and draw the head and body first.





Let's attach arms and legs while thinking of a
pose. Because the hip is pulled back, the legs are partially covered.
 Similarly, draw the part where the legs come out by analogy.















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